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Certified By:
J. Ernest Wilkins, Jr.
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September 9-10, 1993

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MINUTES OF THE 401ST MEETING OF THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
SEPTEMBER 9-10, 1993
BETHESDA, MARYLAND

The 401st meeting of the Advisory Committee on Reactor Safeguards was held at Room P-110, 7920 Norfolk Avenue, Bethesda, Maryland, on September 9-10, 1993. The purpose of this meeting was to discuss and take appropriate action on the items listed in the attached agenda. The meeting was open to public attendance, except a portion that dealt with matters of a personal nature. There were no written statements nor requests for time to make oral statements from members of the public regarding the meeting.

A transcript of selected portions of the meeting was kept and is available in the NRC Public Document Room at the Gelman Building, 2120 L Street, N.W., Washington, D.C. [Copies of the transcript are available for purchase from Ann Riley & Associates, Ltd., 1612 K Street, N.W., Washington, D.C. 20006.]

ATTENDEES

ACRS Members: Dr. J. Ernest Wilkins, Jr. (Chairman), Mr. James Carroll (Vice-Chairman), Mr. William Lindblad (Member-at-Large), Dr. Ivan Catton, Mr. Peter Davis, Dr. Thomas Kress, Dr. Harold Lewis, Mr. Carlyle Michelson, Dr. Robert Seale, Dr. William J. Shack, and Mr. Charles Wylie. [For a list of other attendees, see Appendix III.]

I. CHAIRMAN'S REPORT (Open)

[Note: Mr. Sam Duraiswamy was the Designated Federal Official for this portion of the meeting.]

Dr. J. Ernest Wilkins, Jr., Committee Chairman, opened the meeting at 8:30 a.m. and reviewed the schedule for the meeting. Dr. Wilkins identified a number of items that he believed to be of interest to the Committee, including:

- A memorandum for Samuel J. Chilk from Commissioner Remick, dated August 11, 1993, commends the NRC staff and ACRS in regard to assessing the effectiveness of the present regulations with respect to the Commission's safety goals.
- Messrs. Gary Quittschreiber and Elpidio Igne, ACRS staff, will retire from federal service in the near future.

II. PROPOSED GUIDELINES FOR DIGITAL INSTRUMENTATION AND CONTROL (I&C) SYSTEMS UPGRADES (Open)

[Note: Mr. Dean Houston was the Designated Federal Official for this portion of the meeting.]

Dr. Harold Lewis, Chairman of the Computers in Nuclear Power Plant Operations Subcommittee, indicated that the subcommittee had met with the NRC staff on July 21, 1993, to discuss the proposed guidelines for digital instrumentation and control systems. He indicated that the staff and Nuclear Utilities Management and Resource Council (NUMARC) had conducted a series of meetings on this matter starting in January 1993. He further noted that the staff had scheduled a workshop on this matter on September 13-14, 1993, and that a few Committee members, including himself, would be in attendance.

Mr. William Russell, NRR, discussed the diversity for advanced and operating reactor digital I&C systems. He indicated that the staff recognizes the potential for enhanced safety and reliability that digital systems bring to the industry and that the staff recognizes the challenges to safety that are unique to digital systems implementation. He discussed the following topics:

- Advantages and Disadvantages of Digital Systems
- Common Mode Failure
- Regulatory Review Bases for Advanced Reactors
- Quality
- Diversity- Definition, Position and Evaluation
- Digital Retrofits

He finished with a brief summary of the status of the staff/industry effort to develop guidelines for implementing digital instrumentation and control system retrofits under 10 CFR 50.59. He indicated that it was the staff's hope that they could endorse the industry's guideline and obviate the need for a generic letter on this matter.

During the discussions, Mr. Russell made a commitment to provide the Committee with a copy of the staff's SER on the retrofit of the Eagle 21 (Westinghouse) system on Diablo Canyon expected to be completed in about a week. The Committee agreed to provide the staff with copies of the ACRS consultant's reports that were filed after the July 21, 1993 subcommittee meeting.

Conclusion

The Committee decided to defer consideration of a draft report until representatives of the NUMARC brief the Committee on the latest progress of the joint staff/NUMARC effort to develop

guidelines for the performance of 10 CFR 50.59 reviews on digital I&C system upgrades. No other action was taken by the Committee.

III. INSIGHTS GAINED FROM FOREIGN TRIPS AND U.S. MILITARY SOURCES REGARDING DIGITAL I&C ISSUES (Closed)

[Note: Mr. Douglas Coe was the Designated Federal Official for this portion of the meeting.]

Dr. Wilkins, ACRS Chairman, introduced this topic to the Committee by noting that the session was closed in order to discuss foreign sensitive information (as defined under 10 CFR 2.790(d)2).

NRC Staff Presentation

Mr. Jared Wermiel, Chief, Instrumentation and Controls Branch, NRR, stated that more detailed information regarding his presentation was available in trip reports that had been made available to the ACRS. His presentation covered basic reactor protection system (RPS) architecture, regulatory goals for acceptance of RPS designs, and the standards and methods used to demonstrate the adequacy of safety-critical systems in the United Kingdom, France, Canada, and Germany.

Conclusions

The Committee took no immediate action on the basis of this information briefing.

IV. PROPOSED GENERIC LETTER ON REMOVAL OF ACCELERATED TESTING AND SPECIAL REPORTING REQUIREMENTS FOR EMERGENCY DIESEL GENERATORS FROM PLANT TECHNICAL SPECIFICATIONS (Open)

[Note: Mr. Douglas Coe was the Designated Federal Official for this portion of the meeting.]

Mr. James Carroll, Plant Operations Subcommittee Chairman, introduced this topic to the Committee by noting that the staff's proposed generic letter (GL) on removing emergency diesel generator (EDG) accelerated testing requirements is related to the past issue, reviewed by the ACRS, on EDG reliability monitoring. He noted that the current proposed generic letter had been through the NRC Committee for Review of Generic Requirements (CRGR), but that the description of the letter's objective and means of achieving it, were not clear.

NRC Staff Presentation

Mr. Chris Grimes, Chief, Technical Specifications Branch, NRR, introduced this subject to the Committee, noting that the proposed GL has been issued for public comment through September 30, 1993. Mr. Om Chopra, Electrical Engineering Branch, NRR, explained that the proposed GL addresses only those technical specifications that require accelerated surveillance testing of an EDG which has incurred a specified number of failures. The other class of EDG accelerated testing requirements, involving the testing of operable EDGs during the time an EDG failure exists, is being addressed through existing GL 84-15. Mr. Grimes added that he was not aware of any other generic staff proposals regarding EDG accelerated testing.

Mr. Chopra stated that the proposed GL was originated by the Commission's approval of option four of the staff's recommendations to resolve Unresolved Safety Issue B-56 "Emergency Diesel Generator Reliability." This allowed licensees to adopt STS accelerated EDG testing requirements and to relocate them to their EDG maintenance program, provided they commit to implementing their EDG maintenance program in accordance with the maintenance rule (10 CFR 50.65). He also stated that the issuance of this GL would be the means by which the staff addresses the issue of "problem diesels" as described in Regulatory Guide 1.160. Mr. Gary Zech, NRR, added that the maintenance rule requires the licensee to establish performance goals and criteria consistent with the safety significance of the equipment. This would allow a licensee to determine the means for monitoring and maintaining EDG performance in lieu of using the prescriptive accelerated testing requirements that may now be modified by the licensee following their removal from technical specifications. Mr. Grimes emphasized the staff's current view that accelerated testing need not produce statistically valid results.

Mr. Carroll pointed out that the language retained in some documents, notably NUMARC 87-00 Revision 1, Appendix D, continues to imply that monitoring trigger values will demonstrate achievement of EDG reliability targets. Dr. Lewis added that asking licensees to commit to these mathematically flawed methods will impede progress toward a more rational approach, such as relating the statistics of a large population of EDG inspection findings and operating parameters to the ultimate reliability of individual EDGs. Mr. Grimes responded by stating that maintenance programs under the maintenance rule are expected to become increasingly better at relating equipment inspection findings to the assumptions made regarding system reliability.

Mr. Michelson expressed concern that the improved Standard Technical Specifications (STS) allowed up to 24 hours to test the operable EDG(s) following an EDG failure with the reactor

operating. Mr. Grimes replied that the STS also require other actions to be taken sooner than 24 hours, such as offsite power breaker alignment, and determination that the EDG failure mode is not common to the other EDGs.

Mr. Carroll noted that during the resolution of USI B-56, the ACRS took a strong stand against any form of accelerated testing. Dr. Lewis added that seven consecutive tests of an EDG give no valid statistical insights into an EDG's underlying reliability. Mr. Chopra answered that the staff's proposed GL will remove this testing requirement.

Dr. Lewis asked if the staff had defined the term "maintenance preventable failure" used in the maintenance rule. Mr. Zech indicated that the definition had been thoroughly discussed during recent NRC/industry workshops on maintenance rule implementation. Mr. Grimes added that the staff believes it is advantageous to eliminate accelerated testing and proceed with early implementation of the maintenance rule for EDGs if licensees make their own determination, within their root-cause-of-failure evaluation, of whether a given EDG failure was "maintenance preventable."

Mr. Michelson asked for the definition of "common-mode" failure as used in the STS. Mr. Grimes responded that it was the responsibility of the licensee to arrive at a determination of whether a given failure could potentially be common-mode.

Mr. Davis noted that the STS requirement to shutdown the plant if all on-site emergency power supplies become inoperable may not be the safest action, based on a probabilistic assessment of the risk of loss of off-site power in a shutdown condition with no steam driven capability for core decay heat removal. Mr. Grimes agreed that current STS are not risk-based and that the staff is evaluating possible changes to the AC power portions of STS based on risk considerations.

NUMARC Presentation

Mr. Warren Hall, NUMARC, commented that NUMARC is generally satisfied with the proposed GL, but agrees that some clarification is needed. He noted that the maintenance preventable failures that activate the provisions of 10 CFR 50.65(a)2 must be only those which cause a failure of EDG function.

Conclusion

The Committee provided a report on this matter dated September 21, 1993, to Chairman Selin.

- V. PROPOSED RULEMAKING ON THE FRACTURE TOUGHNESS REQUIREMENTS FOR REACTOR PRESSURE VESSEL (RPV) - REVISIONS TO 10 CFR 50.61, APPENDIX G AND APPENDIX H, AND A NEW RULE ON THERMAL ANNEALING (10 CFR 50.66) (Open)

[Note: Mr. Elpidio Igne was the Designated Federal Official for this portion of the meeting.]

Dr. Robert L. Seale, Chairman of the Subcommittee on Materials and Metallurgy, noted that the Subcommittee met on August 16, 1993, to discuss the proposed rulemaking on fracture toughness requirements and thermal annealing for RPV with representatives of the NRC staff.

NRC Staff Presentation

Mr. Larry Shao, RES, introduced Mr. Allen Hiser, RES, who made the presentation.

Mr. Hiser discussed proposed revisions to (1) 10 CFR 50.61, "Pressurized Thermal Shock (PTS) Rule," (2) 10 CFR Part 50, Appendix G, "Fracture Toughness Requirements," and (3) 10 CFR Part 50, Appendix H - Reactor Vessel Materials Surveillance Requirements, proposed rule, 10 CFR 50.66, "Thermal Annealing Requirements, and draft Regulatory Guide 1027, "Format and Content of Application for Approval for Thermal Annealing of RPV."

Mr. Hiser noted that the principal reasons for the changes were (1) the inadequate specific guidance and acceptance criteria during the integrity of the RPV review of Yankee Nuclear Power Station, (2) Commission guidance, (3) comprehensive staff reviews, and (4) the Nuclear Utility Backfit Analysis Review Group (NUBARG) backfit claim and appeal on requirements for nuclear heating of the coolant during pressure and leak testing.

The PTS issues stemmed mainly from the method for calculating embrittlement estimates in the PTS rule. The proposed revisions to 10 CFR 50.61, the PTS rule, are (1) to make the RT_{PTS} analysis identical with Regulatory Guide 1.99, Revision 2, (2) incorporate thermal annealing as an acceptable option to regain material toughness as a result of irradiation damage, and (3) restructure the PTS rule for clarity. The proposed revisions to 10 CFR Part 50, Appendix G, the fracture toughness requirements rule, are (1) restructure sections of Appendix G -- the pressure-temperature limits and the minimum temperature requirement will be identified in the new table, and procedures for determining equivalent margin when the Charpy Upper Shelf Energy is below 50 ft-lb, and (2) that the pressure and leak test required by the ASME Code must be completed prior to core criticality.

Mr. Hiser discussed the proposed revisions to 10 CFR Part 50, Appendix H, regarding the RPV material surveillance program requirements. These revisions will (1) clarify versions of the ASTM E 185 for various portions of the surveillance program, and (2) discontinue the provisions for reducing the amount of testing in the integrated surveillance programs when "initial results agree with predictions." A prolonged discussion ensued regarding the revision concerning the latter item. Dr. Ivan Catton opposes the elimination of the provision in Appendix H that permits a reduction of testing in Integrated Surveillance Programs where "initial results agree with prediction." Dr. Catton mentioned that the licensee's program is, after all, subject to staff approval on a case-by-case basis. Further, licensees should have some flexibility in scheduling when they actually test specimens.

Mr. Hiser discussed the proposed rule and draft regulatory guide on thermal annealing of the RPV. Thermal annealing is achieved by heating the RPV to 650-850° F. range for about 168 hours. Thermal annealing recovers embrittlement caused by neutron irradiation. Annealing can restore the upper shelf energy, reduce RT_{PTS} and widen the P-T curve operating window. The draft Regulatory Guide 1027, "Format and Content of Application for Approval for Thermal Annealing of RPVs" describes the criteria that the NRC staff will use in evaluating annealing applications and elaborates the provisions of the thermal annealing rule, namely, (1) operating plan, (2) requalification inspection and test program, (3) fracture toughness recovery and reembrittlement rate assurance program, and (4) certification.

Mr. Hiser asked for a Committee endorsement to release the proposed rulemaking package on fracture toughness and thermal annealing requirements and guidance for LWR vessels for public comments.

Conclusion

The Committee prepared and issued a report on the proposed rulemaking package on fracture toughness and thermal annealing requirements and guidance for LWR RPVs to James M. Taylor, EDO. The Committee expressed interest in reviewing the public comments and the staff resolution of these comments before the release of these guides in final form. Additional comments were provided by Dr. Catton and Mr. Lindblad.

VI. MEETING WITH THE NRC COMMISSIONERS (Open)

[Note: Mr. Sam Duraiswamy was the Designated Federal Official for this portion of the meeting.]

On Thursday morning, the Committee reviewed the areas of interest to be discussed in preparation for the meeting. On Thursday afternoon, the Committee traveled to the One White Flint North building, Rockville, Maryland, for a meeting with the NRC Commissioners.

The NRC Commissioners were briefed by the Committee on the following topics:

- Status of ACRS review of evolutionary and advanced light water reactor designs
- Selected ALWR policy issues
- Regulatory Review Group Report

[In accordance with Staff Requirements Memorandum to William Parler, OGC, from Samuel Chilk, SECY, dated June 9, 1989, the Office of the Secretary provides a transcript to the ACRS as the record for this portion of the meeting. The transcript is attached as Appendix V.]

VII. RANKING OF GENERIC SAFETY ISSUES (Open)

[Note: Mr. Sam Duraiswamy was the Designated Federal Official for this portion of the meeting.]

The Committee reviewed and commented on the NRC staff's priority rankings to 31 generic safety issues (eighth group). During the discussion on GI-148, Smoke Control and Manual Fire-Fighting Effectiveness, Dr. Ivan Catton noted that it covers more than firefighter effectiveness and recommended that it not be rolled over into the IPEEE. Dr. Catton agreed to provide a draft Generic Issue for Committee consideration that is broader than GI-148 after he has received a consultant report being prepared on this subject.

Conclusion

The Committee provided a report on this matter dated September 16, 1993, to James M. Taylor, Executive Director for Operations.

VIII. REPORT ON THE MEETING OF THE ADVANCED BOILING WATER REACTORS SUBCOMMITTEE HELD ON SEPTEMBER 8, 1993 (Open)

[Note: Dr. Medhat El-Zeftawy was the Designated Federal Official for this portion of the meeting.]

Mr. Michelson reported on the meeting of the advanced boiling water reactors (ABWR) subcommittee held on September 8, 1993, to review the ABWR standard safety analysis report (SSAR).

Mr. Michelson stated that he still has concerns regarding the finality and completeness of the SSAR document. He stated that the following subcommittee meetings will be held to complete the ABWR review:

- September 22-24, 1993 Review severe accident issues
- October 26-27, 1993 Begin review of staff's FSER
- November 2, 1993 ITAAC/DAC
- November 3, 1993 Security requirements
- November 16-17, 1993 Continue review of FSER
- January 25-26, 1994 Complete FSER and other issues

Mr. Michelson indicated that the Committee will start writing its report to the Commission in February 1994. He urged the members to bring their concerns, if any, to the attention of the full Committee as soon as possible.

Conclusion

The Committee endorsed Mr. Michelson's proposal not to review or endorse individual inspection, test, analysis, and acceptance criteria (ITAAC) as part of the ACRS final report, but the Committee agreed to comment on the process by which ITAACs are developed.

The Committee agreed not to schedule further reports from the ABWR Subcommittee Chairman during the next two full Committee meetings, October and November, unless there is an item of sufficient importance (show stopper) that needs to be brought to the attention of the full Committee. No other Committee action was taken.

IX. REPORT ON THE MEETING OF THE PLANNING AND PROCEDURES SUBCOMMITTEE HELD ON SEPTEMBER 8, 1993 (Open)

[Note: Dr. John T. Larkins was the Designated Federal Official for this portion of the meeting.]

As a result of the Planning and Procedures Subcommittee meeting held on September 8, 1993, the following items were brought to the attention of the Committee:

- The Committee discussed the establishment of a policy to sponsor members and consultants to attend meetings other than ACRS meetings. Messrs. Lindblad and MacWilliams were asked to develop a draft policy for discussion

during the October Planning and Procedures Subcommittee meeting.

- The Committee discussed the status of a draft Manual Chapter that defines the objectives, responsibilities, requirements, and procedures to implement and operate a Fellowship Program. The Committee discussed the wording of term reappointments. A second draft will be presented to the Planning and Procedures Subcommittee in October.
- The members discussed a tabled motion to adopt a proposed amendment to the Bylaws submitted by Mr. Carroll during the 399th ACRS meeting and revised during the 400th ACRS meeting. A motion to approve the proposed amendment (with one word change) was defeated.
- Dr. Wilkins announced that Dr. Shack is the new Chairman of the Materials and Metallurgy Subcommittee and Dr. Seale, the former Chairman, will continue to be a member. Also, Dr. Shack is the new Chairman of the Structural Engineering Subcommittee and Mr. Lindblad, the former Chairman, will continue to be a member.
- The Committee discussed the most recent memorandum from Ronald Scroggins, Deputy Chief Financial Officer, that clarifies the change in method of payment and deposit for services billed on NRC Form 148. The members agreed that this concern should be handled by individual members, not as a Committee.
- Dr. Wilkins reported that access to both Internet and AUTOS for members is still being promised by September. Dr. Lewis requested a briefing on how Internet will function.

X. RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS (Open)

[Note: Mr. Sam Duraiswamy was the Designated Federal Official for this portion of the meeting.]

The responses of the Executive Director for Operations (EDO) to previous ACRS reports were discussed as follows:

- EDO letter, dated July 23, 1993, responding to the ACRS report dated July 15, 1993, concerning ACRS Comments on the Regulatory Review Group Report

Conclusion

The above EDO letter satisfactorily addressed the Committee's comments.

- EDO letter, dated August 18, 1993, responding to the ACRS report dated June 18, 1993, concerning Public Comments on Proposed Rule on ALWR Severe Accident Performance

Conclusion

The above EDO letter satisfactorily addressed the Committee's comments.

XI. EXECUTIVE SESSION (Open)

[Note: Dr. John Larkins was the Designated Federal Official for this portion of the meeting.]

A. Reports and Memoranda

Proposed Generic Letter Regarding Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators from Plant Technical Specifications (Report to Chairman Selin, from J. Ernest Wilkins, Jr., ACRS Chairman, dated September 22, 1993)

Proposed Priority Rankings of Generic Issues: Eighth Group (Report to James M. Taylor, Executive Director for Operations, from J. Ernest Wilkins, Jr., ACRS Chairman, dated September 16, 1993)

Proposed Rule Amending Fracture Toughness Requirements for Light Water Reactor Pressure Vessels, Proposed Rule Regarding Requirements for Thermal Annealing of Reactor Pressure Vessels, and Draft Regulatory Guide on Format and Content of Application for Approval for Thermal Annealing of Reactor Pressure Vessels (Report to James M. Taylor, Executive Director for Operations, from J. Ernest Wilkins, Jr., ACRS Chairman, dated September 20, 1993)

Proposed Generic Letter 93-XX, Research Results on Generic Safety Issue 106, "Piping and the Use of Highly Combustible Gases in Vital Areas" (Memorandum to Brian K. Grimes, Director, Division of Operating Reactor Support, NRR, from John T. Larkins, Executive Director, ACRS, dated September 15, 1993.) Consistent with the Committee's decision, Dr. Larkins informed Mr. Grimes that the Committee had decided not to review the subject proposed generic letter.

B. Future ACRS Activities

- The Committee discussed a letter from Mr. Robert J. Talbert, a concerned citizen, on the issue of emergency operating procedures for dealing with BWR ATWS/Core power stability. The Committee agreed to forward the letter to the Mr. James M. Taylor, EDO, for review and response.
- Dr. Wilkins requested that the members review the proposed schedule for ACRS full committee meetings in CY 1994. Comments should be given to Dr. Savio or Mr. Duraiswamy. The 1994 meeting schedule will be completed during the November meeting. The Committee agreed to schedule the 405th ACRS meeting on January 6-8, 1994.
- The OECD/NEA and the NRC are sponsoring a conference on the results of the TMI-2 Vessel Investigation Project on October 20-22, 1993. The Committee endorsed Dr. Lindblad's request to attend and participate in this conference.
- Dr. Wilkins noted that nominations for 1994 Committee Officers will be considered during the November meeting. Election of new officers will be scheduled during the December meeting. He requested that members advise Dr. Larkins of their disinclination to be considered for nomination.
- The Committee agreed that the 402nd ACRS meeting should be scheduled for two days only, October 7-8, 1993.

C. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 402nd ACRS Meeting, October 7-8, 1993, and future Subcommittee meetings.

The 401st ACRS meeting was adjourned at 4:00 p.m. on Friday, September 10, 1993.

APPENDICES
MINUTES OF THE 401ST ACRS MEETING
SEPTEMBER 9-11, 1993

- I. Federal Register Notice
- II. Meeting Schedule and Outline
- III. Attendees
- IV. Future Agenda and Subcommittee Activities
- V. List of Documents Provided to the Committee
- VI. Transcript of Meeting with the NRC Commissioners

education, especially at the two-year college level. The ATE program seeks projects aimed at the development of innovative methods for using laboratory exercises to improve student understanding of basic principles and for use of modern instrumentation, new technologies, or applications of instruments that extend the instructional capability of the equipment. The ATE program encourages the establishment of equipment-sharing through consortia or centers.

Because the ATE program focuses on improving the quality of technological education through laboratory improvement, projects based primarily on financial need or replacement of equipment at the same level of capability are not appropriate.

Equipment funds must be matched by non-federal dollars equal to or greater than funds requested from NSF. The maximum NSF request is \$100,000. Institutions have 30 months during which the requested equipment must be acquired and the development plan implemented.

B. Preparation and Submission of Preproposals and Formal Proposals

Preproposals for projects should follow the same guidelines given in Section II part C(1) "Preproposals for Centers." Formal proposals for projects should follow the same guidelines given in Section II part C(2) "Formal Proposals for Centers" and Section V "Preparation and Submission of Proposals." Planning Grants will not normally be given for projects.

IV. Workshops, Conferences, Seminars, Studies, and Other Special Projects

The ATE program expects to support a few special projects such as conferences, workshops, symposia, studies, and other activities that will lead to a better understanding of issues in advanced technological education.

Requests should normally be made at least 9 months in advance of the date of the scheduled activity. Individuals or groups wishing to submit such a request should contact an ATE Program Director at (202) 357-7051 before September 24, 1993 and (703) 306-1868 after September 24, 1993 before preparing a two- to three-page preliminary proposal. Following an initial discussion, a preliminary proposal which includes a project outline, description of personnel involved, and approximate budget should be sent to an ATE Program Director. NSF staff will review these preproposals and encourage selected formal proposals.

Formal proposals for such activities should include: (1) A summary indicating the objectives of the project; (2) statement of the need; (3) names and qualifications of key personnel organizing and leading the activity including vitae of principal investigators; (4) lists of participants to be invited or other persons to be involved in the project; (5) information on probable dates of workshops or meetings or duration of other type projects; (6) budget, detailing the requested NSF contribution and support requested or available from other sources. Because proceedings are normally published, requests for support can also include publication costs.

Preproposals and proposals for these special projects should be sent directly to an ATE Program Director at the National Science Foundation, Division of Undergraduate Education, 4201 Wilson Boulevard, Arlington, Virginia 22230 after October 25, 1993 and the Washington address before October 25, 1993, not the Rockville, Maryland address.

For additional information, contact Elizabeth Teles, Program Director, Division of Undergraduate Education, National Science Foundation, 1800 G Street NW, Washington, DC 20550 (202) 357-7051 or the Division of Elementary, Secondary, and Informal Education (202) 357-7066.

Dated: August 20, 1993.

Dr. Robert F. Watson,

Division Director, Division of Undergraduate Education.

[FR Doc. 93-20589 Filed 8-24-93; 8:45 am]

BILLING CODE 7580-01-M

NUCLEAR REGULATORY COMMISSION

Proposed Generic Communication; Long-Term Solutions and Upgrade of Interim Corrective Actions for Thermal-Hydraulic Instabilities in Boiling Water Reactors; Extension of Comment Period

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed generic communication: Extension of comment period.

SUMMARY: On July 21, 1993; 58 FR 39044, the NRC published for public comment a proposed generic letter which would request each BWR holder of an operating license (except for Big Rock Point which does not have capability for operation at reduced flow conditions) (1) take the appropriate

actions to augment its respective procedures and training for preventing thermal-hydraulic instabilities in its reactor and (2) submit to the NRC a plan describing the long-term stability solution option it has selected and the implementation schedule it proposes for the modification of plan protection system to ensure compliance with General Design Criteria 10 and 12 in appendix A to part 50 of title 10 of the Code of Federal Regulations (10 CFR part 50). The comment period for this proposed generic letter was to have expired on August 20, 1993. The BWR Owners' Group (BWROG) has requested to extend the comment period in order to get their individual utility comments coordinated and receive appropriate approval. Because of the complexity of the issue involved, the NRC has decided to extend the comment period for an additional 30 days.

DATES: The comment period has been extended and now expires September 19, 1993. Comments received after this date will be considered if it is practical to do so but assurance of consideration cannot be given except for comments received on or before this date.

ADDRESSES: Submit written comments to Chief, Rules and Directives Review Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Written comments may also be delivered to room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m., Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

FOR FURTHER INFORMATION CONTACT: Larry Phillips (301) 504-3232.

Dated at Rockville, Maryland, this 16th day of August 1993.

For the Nuclear Regulatory Commission,
Richard J. Klemmel,

Acting Chief, Generic Communications Branch, Division of Operating Reactor Support, Office of Nuclear Reactor Regulation.

[FR Doc. 93-20585 Filed 8-24-93; 8:45 am]

BILLING CODE 7580-01-M

Advisory Committee on Reactor Safeguards; Meeting Agenda

In accordance with the purposes of Sections 29 and 182b of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards will hold a meeting on September 9-11, 1993, in room P-110, 7920 Norfolk Avenue, Bethesda, Maryland. Notice of this meeting was

published in the *Federal Register* on July 22, 1993.

Thursday, September 9, 1993

8:30 a.m.-8:45 a.m.: Opening Remarks by ACRS Chairman (Open)—The ACRS Chairman will make opening remarks regarding conduct of the meeting and comment briefly regarding items of current interest. During this session, the Committee will discuss priorities for preparation of ACRS reports.

8:45 a.m.-9:45 a.m.: Proposed Guidelines for Digital Instrumentation and Control (I&C) Systems Upgrades (Open)—The Committee will review and comment on the guidelines proposed by NUMARC for 10 CFR 50.59 evaluations of digital I&C systems upgrades. Representatives of the NRC staff and the industry will participate.

9:45 a.m.-11 a.m.: Insights Gained from Foreign Trips and U.S. Military Sources Regarding Digital I&C Issues (Open/Closed)—The Committee will hear a briefing by and hold discussions with representatives of the NRC staff regarding insights gained by the staff through its interactions with foreign regulatory authorities and nuclear utilities as well as U.S. military sources on digital I&C issues.

Portions of this session will be closed to discuss foreign proprietary information per 5 U.S.C. 552b(c)(4) and classified national security information per 5 U.S.C. 552b(c)(1).

11:15 a.m.-11:45 a.m.: Report on the Activities of the Advanced Boiling Water Reactors Subcommittee (Open)—The Committee will hear a report on the activities of the ACRS Subcommittee on Advanced Boiling Water Reactors. Representatives of the NRC staff will participate, as appropriate.

11:45 a.m.-12:30 p.m.: Preparation for Meeting with the NRC Commissioners (Open)—The Committee will discuss matters scheduled for discussion during its meeting with the NRC Commissioners.

2 p.m.-3:30 p.m.: Periodic Meeting Between the ACRS and the NRC Commissioners (Open)—The Committee will meet with the NRC Commissioners to discuss matters of mutual interest. These discussions will be held at One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

3:30 p.m.-5 p.m.: Proposed Priority Ranking of Generic Issues (Open)—The Committee will review and comment on the priority rankings proposed by the NRC staff for a number of generic issues. Representatives of the NRC staff will participate.

5 p.m.-6:15 p.m.: Preparation of ACRS Reports (Open)—The Committee

will discuss proposed ACRS reports regarding items considered during this meeting.

Friday, September 10, 1993

8:30 a.m.-8:35 a.m.: Opening Remarks by the ACRS Chairman (Open)—The ACRS Chairman will make opening remarks regarding conduct of the meeting.

8:35 a.m.-10 a.m.: Proposed Generic Letter on Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators from Plant Technical Specifications (Open)—The Committee will review and comment on the proposed generic letter on removal of accelerated testing and special reporting requirements for emergency diesel generators from plant technical specifications. Representatives of the NRC staff will participate. Representatives of the industry will participate, as appropriate.

10:15 a.m.-11:30 a.m.: Proposed Rulemaking on the Fracture Toughness Requirements for Reactor Pressure Vessel (RPV)—Revisions to 10 CFR 50.61, Appendix G and Appendix H, and a New Rule on Thermal Annealing (10 CFR 50.66) (Open)—The Committee will review and comment on the proposed rulemaking on the fracture toughness requirements for RPV for protection against pressurized thermal shock events. Also, the Committee will review and comment on a new rule on thermal annealing of the RPV. Representatives of the NRC staff will participate. Representatives of the industry will participate, as appropriate.

11:30 a.m.-12:00 Noon: Reconciliation of ACRS Recommendations (Open)—The Committee will discuss responses from the NRC Executive Director for Operations to recent ACRS comments and recommendations.

1 p.m.-2 p.m.: Report of the Planning and Procedures Subcommittee (Open/Closed)—The Committee will hear a report of the Planning and Procedures Subcommittee on matters related to the conduct of internal organizational and personnel matters relating to ACRS staff members.

Portions of this session may be closed to public attendance to discuss matters that relate solely to internal personnel rules and practices of this advisory committee pursuant to 5 U.S.C. 552b(c)(2) and to discuss matters the release of which would represent a clearly unwarranted invasion of personal privacy pursuant to 5 U.S.C. 552b(c)(6).

2 p.m.-2:45 p.m.: Future ACRS Activities (Open)—The Committee will

discuss topics proposed for consideration during future ACRS meetings.

3 p.m.-5:30 p.m.: Preparation of ACRS Reports (Open)—The Committee will discuss proposed ACRS reports regarding items considered during this meeting.

5:30 p.m.-6:30 p.m.: Miscellaneous (Open)—The Committee will discuss miscellaneous matters related to the conduct of Committee activities and complete discussion of topics that were not completed during previous meetings as time and availability of information permit.

Saturday, September 11, 1993

8:30 a.m.—Close of Business: Preparation of ACRS Reports (Open)—The Committee will discuss proposed ACRS reports regarding items considered during this meeting.

Procedures for the conduct of and participation in ACRS meetings were published in the *Federal Register* on October 16, 1992 (57 FR 47494). In accordance with these procedures, oral or written statements may be presented by members of the public, recordings will be permitted only during those open portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Committee, its consultants, and staff. Persons desiring to make oral statements should notify the ACRS Executive Director, Dr. John T. Larkins, as far in advance as practicable so that appropriate arrangements can be made to allow the necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during this meeting may be limited to selected portions of the meeting as determined by the Chairman.

Information regarding the time to be set aside for this purpose may be obtained by a prepaid telephone call to the ACRS Executive Director prior to the meeting. In view of the possibility that the schedule for ACRS meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should check with the ACRS Executive Director if such rescheduling would result in major inconvenience.

I have determined in accordance with subsection 10(d) Public Law 92-463 that it is necessary to close portions of this meeting noted above to discuss foreign Proprietary Information applicable to the matters being considered per 5 U.S.C. 552b(c)(4), information classified as national security information per 5 U.S.C. 552b(c)(1), and information that involves the internal personnel rules and practices of the agency per 5 U.S.C.

552b(c)(2), and to discuss information the release of which would represent a clearly unwarranted invasion of personal privacy per 5 U.S.C. 552b(c)(6).

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by a prepaid telephone call to the ACRS Executive Director, Dr. John T. Larkins (telephone 301-492-4516), between 8 a.m. and 4:30 p.m. est.

Dated: August 19, 1993.

John C. Hayle,

Advisory Committee Management Officer.

[FR Doc. 93-20586 Filed 8-24-93; 8:45 am]

BILLING CODE 7590-01-04

[Docket No. 72-8 (50-317318)]

Baltimore Gas & Electric Co., Calvert Cliffs Nuclear Power Plant; Director's Decision Under 10 CFR 2.206 (DD-93-14)

Notice is hereby given that the Director, Office of Nuclear Material Safety and Safeguards, has taken action with regard to the Petition of December 21, 1992, by the Maryland Safe Energy Coalition requesting that the Nuclear Regulatory Commission institute a proceeding pursuant to 10 CFR 2.202 with regard to the Independent Spent Fuel Storage Installation (ISFSI) at the Calvert Cliffs Nuclear Power Plant (CCNPP). The Petitioner requested that the NRC:

(1) Halt the transfer of nuclear waste from the spent fuel pool at the CCNPP to the ISFSI until certain alleged safety problems have been fully investigated and solved;

(2) Conduct hearings for further rulemaking and regulation of nuclear waste storage at the plant; and

(3) Deny a Certificate of Compliance and suspend the license issued to the Baltimore Gas and Electric Company (BG&E) for dry cask storage of spent fuel until the concerns set forth in the Petition are addressed by the NRC and BG&E.

The Director of the Office of Nuclear Material Safety and Safeguards has determined to deny the Petition. The reasons for this denial are explained in the "Director's Decision under 10 CFR 2.206" (DD-93-14), which is available for public inspection in the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW, (Lower Level), Washington, DC 20546 and at the Local Public Document Room at the Calvert Cliffs Public Library, 30 Dale Street, P.O. Box 488,

Prince Frederick, Maryland 20678. A copy of this decision will be filed with the Secretary for the Commission's review in accordance with 10 CFR 2.206(c) of the Commission's regulations. As provided by this regulation, the decision will constitute the final action of the Commission 25 days after the date of issuance of the decision unless the Commission on its own motion institutes a review of the decision within that time.

Dated at Rockville, Maryland, this 16th day of August 1993.

For the Nuclear Regulatory Commission,

Robert M. Bernaro,

Director, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 93-20587 Filed 8-24-93; 8:45 am]

BILLING CODE 7590-01-04

[Docket No. 50-382]

Entergy Operations, Inc., (Waterford Steam Electric Station, Unit No. 3); Exemption

I.

Entergy Operations, Inc. (the licensee), is the holder of Facility Operating License No. NPP-38, which authorizes operation of the Waterford Steam Electric Station, Unit No. 3 (Waterford). The license provides, among other things, that Waterford is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (the Commission) now and hereafter in effect.

The Waterford facility consists of a pressurized water reactor located in St. Charles Parish, Louisiana.

II.

In its letter dated May 7, 1993, the licensee applied for an amendment to Operating License No. NPP-38 to change certain provisions of the Waterford Technical Specifications (TSs). The licensee in this letter also requested an exemption from the Commission's regulations. The subject exemption is from a requirement in appendix J to 10 CFR part 50 that a set of three Type A tests (Containment Integrated Leakage Rate Tests, or CILRTs) be performed, at approximately equal intervals, during each 10-year service period.

The Type A test is defined in 10 CFR part 50, appendix J, Section II.F, as a "test intended to measure the primary reactor containment overall integrated leakage rate (1) after the containment has been completed and is ready for operation, and (2) at periodic intervals thereafter." The 10-year service period begins with the inservice date. TS

4.6.1.2.a requires that the Type A tests be conducted during shutdown at 40 ± 10 month intervals in each 10-year service period. This TS incorporates the requirements of Section III.D.1.(a) of appendix J with regard to performing three Type A tests at approximately equal intervals during each 10-year service period. The first CILRT testing interval was 32 months, and the second was 36 months. The time interval between CILRTs should be about 40 months based on performing three such tests at approximately equal intervals during each 10-year service period. Since refueling outages do not necessarily occur at 40-month intervals, a permissible variation of 10 months (25 percent variation) is typically authorized in the technical specifications issued with an operating license to permit flexibility in scheduling the CILRTs.

The proposed revision to the Waterford TSs associated with the licensee's May 7, 1993, request for a one-time exemption would change the TSs by extending the surveillance requirements of TS 4.6.1.2.a and its associated Bases. The extension would allow the third Type A CILRT within the first 10-year service period to be conducted during the Cycle 7 refueling outage. This TS change is a one-time schedular extension of the third maximum interval from 50 months to 54 months. It does not affect the second 10-year service period.

With respect to the subject exemption request, the NRC staff notes that the first and second CILRTs of the set of three tests for the first 10-year service period for Waterford were conducted in May 1988 and May 1991. This represents testing intervals of 32 and 36 months from the inservice date of September 1985. The third of the first set of three CILRTs will be scheduled for Refueling Outage 7, projected to start in October 1995, pending approval of the exemption request. The current third test period in the first 10-year service period will actually be exceeded by approximately 4 months.

Data from the first (May 1988) and second (May 1991) CILRT at Waterford 3 indicates that most of the measured leakage is from the containment penetrations and not from the containment barrier. The "no-leak" leakage rate was well below the 10 CFR part 50 appendix J limit. Both appendix J and TS require that the leakage rate be less than 75% of L_0 to allow for deterioration in leakage paths between tests. The allowable leakage rate, L_0 , is 0.5 wt. %/day. Therefore, the established acceptable limit is <0.375 wt. %/day. The "no-leak" leakage rates for the first



/Appendix II
UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

August 26, 1993

SCHEDULE AND OUTLINE FOR DISCUSSION
401ST ACRS MEETING
September 9-11, 1993

Thursday, September 9, 1993, Room P-110, 7920 Norfolk Avenue, Bethesda, MD.

1) 8:30 - 8:45 A.M.

Opening Remarks by ACRS Chairman (Open)

- 1.1) Opening statement (JEW/SD)
- 1.2) Items of Current Interest (JEW/JTL)
- 1.3) Priorities for preparation of ACRS reports (JEW/SD)

2) 8:45 - 9:⁵⁵~~45~~ A.M.

Proposed Guidelines for Digital Instrumentation and Control (I&C) Systems (Open) (HWL/DC/MDH)

- 2.1) Remarks by the Subcommittee Chairman
- 2.2) Briefing by and discussions with representatives of the NRC staff regarding the guidelines proposed by NUMARC for use by the licensees in performing 50.59 evaluations of the digital I&C systems upgrades. Representatives of the industry will participate, as appropriate

3) ^{10:10}~~9:45~~ - ³⁰~~11:00~~ A.M.

Insights Gained from Foreign Trips and U.S. Military Sources Regarding Digital I&C Issues (~~Open~~/Closed) (HWL/DC)

- 3.1) Remarks by the Subcommittee Chairman
- 3.2) Briefing by and discussions with representatives of the NRC staff regarding insights gained by the staff through its interactions with foreign regulatory authorities and nuclear utilities as well as U.S. military sources on digital I&C issues

(Note: Portions of this session will be closed to discuss foreign proprietary information and classified national security information.)

^{9:55}~~11:00~~ - ^{10:10}~~11:15~~ A.M.

BREAK

[= Transcribed portion of meeting

4) 11:15 - 11:45 A.M.

Report of the Advanced Boiling Water Reactors Subcommittee (Open) (CM/MME)

4.1) Report on the activities of the Advanced Boiling Water Reactors Subcommittee related to its review of the ABWR design. Representatives of the NRC staff will participate, as appropriate

5) ^{12:00 noon} ~~11:45~~ - ⁵⁰ 12:30 P.M.

Preparation for Meeting with the NRC Commissioners (Open) (JEW, et al./JTL, et al.)

5.1) Discussion of matters scheduled for discussion with the NRC Commissioners:

- Status of ACRS Review of Evolutionary and Passive Plant Designs
- Regulatory Review Group Report
- Selected ALWR policy issues

⁵⁰ 12:30 - 1:30 P.M.

LUNCH

1:40 - 2:00 P.M.

Travel to One White Flint North for Meeting With the NRC Commissioners

(Transportation will be provided for the ACRS members to and from One White Flint North)

6) 2:00 - ¹⁰ 3:30 P.M.

Meeting with the NRC Commissioners (Open)

6.1) Meeting with the NRC Commissioners to discuss topics noted above

¹⁰ 3:40 - ~~4:00~~ P.M.

Travel from One White Flint North to the Phillips Building

7) ^{3:40} ~~4:00~~ - ^{4:50} ~~5:15~~ P.M.

Prioritization of Generic Issues (Open) (JEW/DC/SD)

7.1) Remarks by the Subcommittee Chairman
7.2) Discussion of the comments by the cognizant subcommittee chairmen on the priority rankings proposed by the NRC staff for a number of generic issues. Representatives of the NRC staff will participate

8) ~~5:15~~ - ~~6:15~~ P.M.

Preparation of ACRS Reports (Open)

8.1) Discussion of proposed ACRS reports on:
8.1-1) Proposed guidelines for digital I&C systems upgrades (HWL/DC/MDH)

S.1-2) Prioritization of Generic
Issues (JEW/DC/SD)

Friday, September 10, 1993, Room P-110, 7920 Norfolk Avenue, Bethesda, MD

- 9) 8:30 - 8:35 A.M. Opening Statement by ACRS Chairman (Open)
(JEW/SD)
- 10) 8:35 - 10:00 A.M. Proposed Generic Letter on Removal of Cer-
tain Technical Specification Requirements
for Emergency Diesel Generators (Open)
(JCC/DC/PAB)
- 10.1) Remarks by the Subcommittee Chairman
- 10.2) Briefing by and discussions with
representatives of the NRC staff
regarding a proposed Generic Letter
on removal of accelerated testing and
special reporting requirements for
emergency diesel generators from
plant technical specifications.
Representatives of the industry will
participate, as appropriate
- 10:00 - 10:15 A.M. BREAK
- 11) 10:15 - 11:³⁵~~30~~ A.M. Proposed Rulemaking on the Fracture Tough-
ness Requirements and Thermal Annealing for
Reactor Pressure Vessels (RPV) (Open)
(RLS/EGI)
- 11.1) Remarks by the Subcommittee Chairman
- 11.2) Briefing by and discussions with
representatives of the NRC staff
regarding proposed revisions to 10
CFR 50.61, Appendices G and H - frac-
ture toughness requirements for RPV
for protection against pressurized
thermal shock events, and proposed 10
CFR 50.66 - Thermal Annealing of RPV.
Representatives of the industry will
participate, as appropriate
- 12) 11:³⁵~~30~~ - 11:⁴⁰~~00~~ Noon Reconciliation of ACRS Comments and Recom-
mendations (Open) (JEW, et al./SD)
- 12.1) Discussion of the responses from the
NRC Executive Director for Operations
to comments and recommendations made
in recent ACRS reports
- 12:00 - 1:00 P.M. LUNCH

11:40
13) ~~1:00~~ - 2:00¹⁵ P.M.

Report of the Planning and Procedures Subcommittee (Open/Closed) (JEW/JTL)

13.1) Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business and organizational and personnel matters relating to ACRS staff members

(Note: A portion of this session may be closed to public attendance pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to the internal personnel rules and practices of this advisory Committee and matters the release of which would represent a clearly unwarranted invasion of personal privacy.)

4:50
14) ~~2:00~~ - 2:45^{6:00} P.M.

(September 9-Thursday)

Future ACRS Activities (Open) (JEW/RPS)

14.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future meetings

2:45 - 3:00 P.M.

BREAK

2:15
15) ~~3:00~~ - 5:30^{4:00} P.M.

Preparation of ACRS Reports (Open)

15.1) Discussion of proposed ACRS reports on:

- 15.1-1) Proposed Generic Letter on Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators (JCC/DC/PAB)
- 15.1-2) Proposed Rulemaking on Fracture Toughness Requirements and Thermal Annealing for Reactor Pressure Vessels (RLS/EGI)
- 15.1-3) Proposed Guidelines for Digital I&C Systems Upgrades (HWL/DC/MDH)
- 15.1-4) Prioritization of Generic Issues (JEW/DC/SD)

16) ~~5:30~~ - 6:30 P.M.

Miscellaneous (Open)

16.1) Discussion of matters considered during this meeting and matters considered but not completed at previous

meetings as time and availability of information permit.

Saturday, September 11, 1993, Room P-110, 7920 Norfolk Avenue, Bethesda, MD (No meeting on Saturday)

- 17) 8:30 - Close of Business Preparation of ACRS Reports (Open)
17.1) Discussion of proposed ACRS reports regarding matters considered during this meeting

- NOTE:
- Presentation time should not exceed 50 percent of the total time allocated for a 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 - 35.

APPENDIX III: MEETING ATTENDEES

401ST ACRS MEETING
SEPTEMBER 9-10, 1993

NRC STAFF

Christina Antonescu	RES
Leo Beltracchi	RES
Richard Borchardt	NRR
Robert Brill	RES
John Chen	RES
Matthew Chiramal	NRR
Om Chopra	NRR
Franklin Coffman	RES
Richard Correia	NRR
Claudia Craig	NRR
John Craig	RES
Clifford Douth	NRR
Ronald Emrit	RES
John Gallagher	NRR
John K. Ganiere	NRR
Christopher Grimes	NRR
Allen Hiser	RES
George Hubbard	NRR
Joseph Joyce	NRR
Paul Loeser	NRR
Chester Poslusny	NRR
Faust Rosa	NRR
Christopher Rourke	RES
William T. Russell	NRR
Aleck Serkiz	RES
Charles Serpan	RES
Lawrence Shao	RES
Alfred Taboada	RES
Mat Taylor	EDO
Cecil Thomas	NRR
Eric Weiss	NRR
Jerry Wermiel	NRR
Gary Zech	NRR

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

Hector Barbeito	Bechtel - SERCH Licensing
Margo Barron	LIS-NUS
Jess Betlack	MPRA
Kurt Cogers	NUMARC
Robert Draper	Winston & Strawn
Paul Eshleman	E&G Inc.
Warren Hall	MUMARC
Bob Helfrich	Winston & Strawn
Roger Huston	TVA
Arthur Killinger	MPR Associates, Inc.
Jim Lewe	J. M. Lewe Associates
Thomas Lubnow	MPR Associates, Inc.
Yoshi Murabe	JEPIC
Anthony Pfeffer	SERCH Licensing
Tony Pietrangelo	NUMARC
George Rudy	NUS
Carl Schaefer	MITRE Corp
Carl Snyder	NUS
John Trotter	EPRI - ALWR
Karen Unnerstall	Newman & Holtzinger

APPENDIX IV

ACRS FULL COMMITTEE AND SUBCOMMITTEE MEETINGS

September 22, 1993

Mechanical Components, October 5, 1993, 7920 Norfolk Avenue, Bethesda, MD (Igne), 8:30 a.m., Room P-110. The Subcommittee will discuss the status of the ongoing NRC and industry activities associated with motor-operated valves, check valves, butterfly valves, and other related matters. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of October 4:

Michelson	HYATT	Wchld	NONE
Carroll	HOLIDAY INN		
Lindblad	HYATT		
Wylie	HYATT		

Decay Heat Removal Systems, October 5, 1993, 7920 Norfolk Avenue, Bethesda, MD (Boehnert), 12:30 p.m., Room P-422. The Subcommittee will review the proposed rule to address resolution of Generic Safety Issue-23 "Reactor Coolant Pump Seal Failure." Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of October 4:

Catton	HYATT	Shack	NONE
Davis	NONE	Wilkins	HYATT
Kress	RESIDENCE INN	Ward	NONE

Improved Light Water Reactors, October 6, 1993, 7920 Norfolk Avenue, Bethesda, MD (El-Zeftawy/Mathis), 8:30 a.m., Room P-110. The Subcommittee will begin its review of the NRC staff's Safety Evaluation Report related to the Electric Power Research Institute's (EPRI's) Passive LWR Utility Requirements document and related matters. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of October 5:

Wylie	HYATT	Kress	RESIDENCE INN
Carroll	HOLIDAY INN	Lindblad	HYATT
Catton	HYATT	Michelson	HYATT
Davis	NONE	Seale	HYATT

Planning and Procedures, October 6, 1993, 7920 Norfolk Avenue, Bethesda, MD (Larkins), 2:00 p.m. - 4:30 p.m., Room P-422. The Subcommittee will discuss proposed ACRS activities and related matters. Portions of this meeting may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS and matters the release of which would represent a clearly unwarranted invasion of personal privacy. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of October 5:

Wilkins	HYATT
Carroll	HOLIDAY INN
Lindblad	HYATT

402nd ACRS Meeting, October 7-8, 1993, 7920 Norfolk Avenue, Bethesda, MD, Room P-110. During this meeting, the Committee plans to consider the following:

- A. Proposed Resolution of Generic Issue-23, "Reactor Coolant Pump Seal Failure" - Review and comment on the proposed rule to address the resolution of Generic Issue-23. Representatives of the NRC staff will participate. Representatives of the industry will participate, as appropriate.
- B. EPRI Passive LWR Requirements Document - Review and comment on the NRC staff's Safety Evaluation Report related to the EPRI Utility Requirements Document for Passive LWRs and related matters. Representatives of the NRC staff and industry will participate.
- C. Resolution of Generic Issue 67.5.1, "Reassessment of SGTR Radiological Consequences" - Review and comment on the proposed resolution of Generic Issue 67.5.1 that addresses the validity of present techniques to calculate offsite radioactive dose due to releases from a design basis steam generator tube rupture. Representatives of the NRC staff will participate.
- D. Proposed Final Amendments to 10 CFR Part 55 - Review and comment on the proposed final amendments to 10 CFR Part 55 regarding renewal of license and requalification requirements for licensed operators. Representatives of the NRC staff will participate. Representatives of the industry will participate, as appropriate.
- E. Severe Accident/PRA Issues for the ABWR Design - Hear presentations by and hold discussions with representatives of the NRC staff and GE on the severe accident/PRA issues for the ABWR design. Develop comments and recommendations for inclusion in the final ACRS report on the Final Design Approval for the ABWR.

- F. Insights Gained from the NRC Staff Reassessment of the Fire Protection Program (tentative) - Hear a briefing by and hold discussions with representatives of the NRC staff on the lessons learned from the staff's recent reassessment of the fire protection program. [Note: This item has been deferred to a future ACRS meeting.]
- G. Steam Generator Tube Rupture Event at Palo Verde Unit 2 - Hear a briefing by and hold discussions with representatives of the NRC staff regarding the issues arising from the steam generator tube rupture event that occurred at Palo Verde Unit 2 on March 14, 1993. Representatives of the industry will participate, as appropriate.
- H. Resolution of ACRS Comments and Recommendations - Discuss responses from the NRC Executive Director for Operations to recent ACRS comments and recommendations.
- *I. Report of the Planning and Procedures Subcommittee - Hear a report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business. A portion of this session may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS and matters the release of which would represent a clearly unwarranted invasion of personal privacy.
- J. ACRS Subcommittee Activities - Hear reports and hold discussions regarding the status of ACRS subcommittee activities, including reports from the Subcommittees on Thermal Hydraulic Phenomena, and Computers in Nuclear Power Plant Operations.
- K. Future ACRS Activities - Discuss topics proposed for consideration by the full Committee during future meetings.
- L. Miscellaneous - Discuss miscellaneous matters related to the conduct of Committee activities and complete discussion of matters and specific issues that were not completed during previous meetings as time and availability of information permit.

Advanced Boiling Water Reactors, October 26-27, 1993, 7920 Norfolk Avenue, Bethesda, MD (El-Zeftawy), 8:30 a.m., Room P-110. The Subcommittee will begin its review of the NRC staff's Final Safety Evaluation Report for the GE ABWR design. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the nights of October 25 and 26:

Michelson	HYATT	Kress	RESIDENCE INN
Carroll	HOLIDAY INN	Lindblad	HYATT
Catton	HYATT	Seale	HYATT
Davis	NONE	Shack	HYATT
		Wylie	HYATT
		Costner	NONE

*Open/Closed

Thermal Hydraulic Phenomena, October 28, 1993, 7920 Norfolk Avenue, Bethesda, MD (Boehnert), 8:30 a.m., Room P-110. The Subcommittee will review selected aspects of the NRC-RES-sponsored ROSA-V confirmatory test program being conducted in support of the Westinghouse AP600 passive plant design certification effort. Specific review topics will include: facility design modifications and additions, the test matrix, and instrumentation and controls. Also, the Subcommittee will discuss the status of the RES contract with Purdue University to perform integral thermal-hydraulic testing in support of the GE SBWR passive plant design. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of October 27:

Catton	HYATT	Dhir	NONE
Davis	NONE	Schrock	NONE
Kress	RESIDENCE INN	Wulff	NONE
Seale	HYATT	Zuber	NONE
Wilkins	HOLIDAY INN		

Ad Hoc Subcommittee on Design Acceptance Criteria/Computers in Nuclear Power Plant Operations, November 2, 1993, 7920 Norfolk Avenue, Bethesda, MD (Coe/El-Zeftawy), 8:30 a.m., Room P-110. The Subcommittees will review Chapter 7, "Instrumentation and Control Systems" of the Standard Safety Analysis Report for the ABWR design and associated Design Acceptance Criteria/Inspections, Tests, Analyses, and Acceptance Criteria. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of November 1:

Carroll	HOLIDAY INN	Wylie	HYATT
Lewis	RESIDENCE INN	Kemmerer	NONE
Catton	HYATT	Kerr	NONE
Davis	NONE	Place (SEI)	NONE
Michelson	HYATT		
Wilkins	HOLIDAY INN		

Safeguards and Security, November 3, 1993, 7920 Norfolk Avenue, Bethesda, MD (Alderman), 8:30 a.m., Room P-110. The Subcommittee will review the proposed SECY paper on Internal Threat, proposed Rule Associated with Staff Recommendation for Protection Against Malevolent Use of Vehicles at Nuclear Power Plants, and Safeguards requirements for the Advanced Boiling Water Reactors. Portions of this meeting may be closed to discuss safeguards information per 5 U.S.C. 552b(c)(3). Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of November 2:

Lewis	RESIDENCE INN	Lindblad	HYATT
Carroll	HOLIDAY INN	Michelson	HYATT
Catton	HYATT	Wilkins	HOLIDAY INN
Davis	NONE	Wylie	HYATT

Planning and Procedures, November 3, 1993, 7920 Norfolk Avenue, Bethesda, MD (Larkins), 2:00 p.m. - 4:30 p.m., Room P-422. The Subcommittee will discuss proposed ACRS activities and related matters. Portions of this meeting may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS and matters the release of which would represent a clearly unwarranted invasion of personal privacy. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of November 2:

Wilkins	HOLIDAY INN
Carroll	HOLIDAY INN
Lindblad	HYATT

403rd ACRS Meeting, November 4-6, 1993, 7920 Norfolk Avenue, Bethesda, MD, Room P-110.

Advanced Boiling Water Reactors, November 16-17, 1993, 7920 Norfolk Avenue, Bethesda, MD (El-Zeftawy), 8:30 a.m., Room P-110. The Subcommittee will continue its review of the NRC staff's Final Safety Evaluation Report for the GE ABWR design. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the nights of November 15 and 16:

Michelson	HYATT	Kress	RESIDENCE INN
Carroll	HOLIDAY INN	Lindblad	HYATT
Catton	HYATT	Seale	HYATT
Davis	NONE	Shack	HYATT
		Wylie	HYATT
		Costner	NONE

Individual Plant Examinations, November 18, 1993 (tentative), 7920 Norfolk, Bethesda, MD (Houston), 8:30 a.m., Room P-110. The Subcommittee will discuss the: 1) status of and insights gained from the Individual Plant Examination (IPE) Program, 2) general status of the methodologies used by the licensees, and 3) status of resolution of generic issues through the IPE and IPEEE programs. Lodging will be announced later. Attendance by the following is anticipated:

Davis	Michelson
Kress	Seale
Catton	Shack
Lindblad	Kerr
	Ward

Naval Reactors Facility Tour, December 7, 1993, Naval Reactors Headquarters, Crystal City, VA (Boehnert), (time to be determined). Members of the ACRS will tour the DOD/DOE Naval Reactors facility exhibit hall and receive a briefing on related activities. Lodging will be announced later. Attendance by the following is anticipated:

Lewis (tent)	Michelson
Catton (tent)	Seale
Carroll	Shack
Davis	Wilkins
Kress	Wylie
Lindblad	

ABB-CE Standard Plant Designs, December 8, 1993, 7920 Norfolk Avenue, Bethesda, MD (Coe), 8:30 a.m., Room P-110. The Subcommittee will begin its review of the Standard Safety Analysis Report for the ABB-CE System 80+ design. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of December 7:

Carroll	HOLIDAY INN	Lindblad	HYATT
Catton	HYATT	Michelson	HYATT
Davis	NONE	Seale	HYATT
Kress	RESIDENCE INN	Wylie	HYATT

Planning and Procedures, December 8, 1993, 7920 Norfolk Avenue, Bethesda, MD (Larkins), 4:00 p.m. - 6:00 p.m., Room P-422. The Subcommittee will discuss proposed ACRS activities and related matters. Portions of this meeting may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS and matters the release of which would represent a clearly unwarranted invasion of personal privacy. Attendance by the following is anticipated, and reservations have been made at the hotels as indicated for the night of December 7:

Wilkins	HOLIDAY INN
Carroll	HOLIDAY INN
Lindblad	HYATT

404th ACRS Meeting, December 9-11, 1993, 7920 Norfolk Avenue, Bethesda, MD, Room P-110.

405th ACRS Meeting, January 6-8, 1994, 7920 Norfolk Avenue, Bethesda, MD, Room P-110.

Advanced Boiling Water Reactors, January 25-26, 1994, 7920 Norfolk Avenue, Bethesda, MD (El-Zeftawy), 8:30 a.m., Room P-110. The Subcommittee will review any residual issues associated with the ABWR design and prepare a proposed ACRS report on ABWR issues for consideration by the full Committee. Lodging will be announced later. Attendance by the following is anticipated:

Michelson	Kress
Carroll	Lindblad
Catton	Seale
Davis	Shack
	Wylie
	Costner

Severe Accidents, Date to be determined (December/January), Bethesda, MD (Houston). The Subcommittee will discuss both the methodology developed for assessing the effects of direct containment heating (DCH) and its application to the Zion and Surry nuclear power plants. Attendance by the following is anticipated:

Kress	Lindblad
Catton	Michelson
Davis	Seale
	Consultants (TBD)

Thermal Hydraulic Phenomena, Date to be Determined (December/January), Bethesda, MD (Boehnert). The Subcommittee will continue its review of the NRC RELAP5/MOD 3 code. Attendance by the following is anticipated:

Catton	Dhir
Davis	Schrock
Kress	Wulff
Seale	Zuber
Wilkins	

Thermal Hydraulic Phenomena, Date to be determined (2-day meeting), San Jose, CA (Boehnert). The Subcommittee will continue its review of the GE analytical program (TRACG code) supporting the certification effort for the Simplified Boiling Water Reactor design. Attendance by the following is anticipated:

Catton	Dhir
Carroll	Wulff
Davis	Zuber
Kress	
Seale	
Wilkins	

APPENDIX V
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE

MEETING HANDOUTS

AGENDA

DOCUMENTS

ITEM NO.

- 1 Opening Remarks by ACRS Chairman
 1. Memorandum for Samuel J. Chilk from Commissioner Remick, dated August 11, 1993, regarding SECY-93-232, "Staff Approach for Assessing the Effectiveness of the Present Regulations with Respect to the Commission's Safety Goals"

- 2 Proposed Guidelines for Digital Instrumentation and Control (I&C) Systems Upgrades
 2. Diversity for Advanced and Operating Reactor Digital I & C Systems, Prepared by William T. Russell, dated September 9, 1993 [Viewgraphs]

- 3 Insights Gained from Foreign Trips and U.S. Military Sources Regarding Digital Instrumentation and Control Issues
 3. Status of NRC Staff/Industry Efforts to Develop Guidelines for Implementing Digital Instrumentation and Control System Retrofits Under 10 CFR 50.59, Presented by Jared Wermiel, dated September 9, 1993
 4. Foreign Experience and Regulatory Approaches to Digital Instrumentation and Control Systems, Presented by Jared Wermiel, NRR, dated September 9, 1993 [Proprietary Information - Foreign Information]

- 5 Preparation for Meeting with the NRC Commissioners
 5. Background Information for Meeting with Commissioners, Including Selected ALWR Policy Issues and Regulatory Review Group Report [Handout #5.1]
 6. Script for Commission Meeting (Revised Version - September 9, 1993)
 7. Memorandum to Samuel Chilk, Secretary of the Commission, from John Larkins, Executive Director, ACRS, dated August 31, 1993, regarding ACRS Meeting with the NRC Commissioners on September 9, 1993 - Background Information, with enclosures

- 9 Opening Statement by ACRS Chairman
 8. Program for the Quadripartite Meeting of the National Advisory Committees of France, Germany, Japan, and USA on Safety Options for Future Pressurized Water Reactors, dated September 10, 1993

- 10 Proposed Generic Letter on Removal of Certain Technical Specification Requirements for Emergency Diesel Generators
 9. NRC Staff Presentation of Proposed Generic Letter on Removal of Accelerated Testing and Special Reporting Requirement for Emergency Generators from Plant TS, dated September 10, 1993, Presented by Om P. Chopra [Viewgraphs]
- 11 Proposed Rulemaking on the Fracture Toughness Requirements and Thermal Annealing for Reactor Pressure Vessels (RPV)
 10. Proposed Rule Package on Fracture Toughness and Thermal Annealing Requirements and Guidance for Light Water Reactor Vessels, dated September 10, 1993, Presented by Allen Hiser [Viewgraphs]
- 12 Reconciliation of ACRS Comments and Recommendations
 11. Reconciliation of ACRS Comments and Recommendations (2 reports) [Handout #12.1]
- 13 Report of the Planning and Procedures Subcommittees
 12. Minutes of Planning and Procedures Subcommittee Meeting - September 8, 1993 [Handout #13.1]
 13. Papers by ACRS Members for Quadripartite Meeting [Handout #12.2]
 14. Memorandum for Samuel Chilk from Forrest Remick, dated August 31, 1993, regarding SECY-93-232, "Staff Approach for Assessing the Effectiveness of the Present Regulations with Respect to the Commission's Safety Goals," with enclosure [Official Use Only]
 15. Letter to Dr. Selin from Hal Lewis, dated July 13, 1993, regarding Meeting with Chairman Selin
- 14 Future ACRS Activities
 16. Memorandum for ACRS Members from R. P. Savio, dated September 9, 1993, regarding Future ACRS Activities - 402nd ACRS Meeting October 7-8, 1993 [Handout #14.1]
 17. Letter from Concerned Individual -- ATWS with Core Power Instabilities [Handout 14.2]

MEETING NOTEBOOK CONTENTS

TAB

DOCUMENTS

- 2 Proposed Guidelines for Digital Instrumentation and Control (I&C) Systems Upgrades
1. Table of Contents, Agenda, and Project Status Report
 2. Letter to Alex Marion, NUMARC, from Jared Wermiel, NRC, dated June 2, 1993, regarding NUMARC Proposed "Guideline for Licensing Digital I & C System Upgrades," with Staff Comments in Redline/Strikeout Form, with enclosure
 3. NUMARC Presentation Handouts from the Computers in Nuclear Power Plant Operations Subcommittee Meeting, dated July 21, 1993
 4. ACRS Consultant Report to Douglas Coe from William Kerr, dated July 26, 1993, regarding Comments on Subcommittee Meeting [Official Use Only]
 5. Memorandum for ACRS Members from Mark Stella, dated August 2, 1993, regarding SEI Consultant Report, with enclosure [Official Use Only]
 6. Draft Operating Reactors: Digital Retrofits. Digital System Review Procedures, Version 1, undated [Official Use Only]
 7. Draft Branch Technical Position (HICB) Digital Instrumentation and Control System in Advanced Plants, undated [Official Use Only]
- 3 Insights Gained from Foreign Trips and U.S. Military Sources Regarding Digital Instrumentation and Control Issues
8. Table of Contents, Agenda, and Project Status Report
 9. Letter to James Taylor, EDO, from J. Ernest Wilkins, Jr., ACRS Chairman, dated June 18, 1993, regarding Trip Reports
- 7 Prioritization of Generic Issues
10. Memorandum for J. Ernest Wilkins, Jr. from Sam Duraiswamy, dated July 20, 1993, regarding Assignments for Reviewing Proposed Priority Rankings for Generic Safety Issues - Eighth Group, with enclosures
 11. ACRS Letter to James Taylor, EDO, dated November 12, 1992, regarding Revised Guidelines for Prioritization of Generic Safety Issues
 12. Correspondence from ACRS members on Questions Raised During Review of Generic Issue Prioritization
- 10 Proposed Generic Letter on Removal of Certain Technical Specification Requirements for Emergency Diesel Generators
13. Table of Contents, Agenda, and Project Status Report
 14. Memorandum for John Larkins from Gail Marcus, NRR, dated

- August 12, 1993, regarding Forwarding of Proposed NRC Generic Letter Regarding Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators from Plant Technical Specifications, with enclosure
15. Memorandum for John Larkins from Gail Marcus, NRR, dated August 4, 1993, regarding Forwarding of Proposed NRC Generic Letter Regarding Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators from Plant Technical Specifications, with enclosure
 16. Regulatory Guide 1.160, Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, dated June 1993
 17. Standard Technical Specifications (excerpt) and Bases for EDG Accelerated Testing
 18. NUMARC 87-00, Appendix D. EDG Reliability Program
 19. NUMARC 93-01 (excerpt) Section 12.2.4
 20. SECY-93-044 (excerpt), Discussion of Option 4 and Staff Conclusions
 21. Memorandum to Brian Grimes, NRR, from John Larkins, Executive Director, ACRS, dated August 13, 1993, regarding Forwarding of Proposed NRC Generic Letter Regarding Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators from Plant Technical Specifications
11. Proposed Rulemaking on the Fracture Toughness Requirements and Thermal Annealing for Reactor Pressure Vessels (RPV)
22. Table of Contents, Agenda, and Project Status Report
 23. Note for Elpidio Igne from Allen Hiser, RES, dated August 20, 1993, regarding Response to Request at ACRS Subcommittee Meeting, with enclosures

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: PERIODIC MEETING WITH THE ADVISORY COMMITTEE
ON REACTOR SAFEGUARDS (ACRS)

Location: ROCKVILLE, MARYLAND

Date: SEPTEMBER 9, 1993

Pages: 55 PAGES

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The transcript is intended solely for general informational purposes. As provided by 10 CFR 9.103, it is not part of the formal or informal record of decision of the matters discussed. Expressions of opinion in this transcript do not necessarily reflect final determination or beliefs. No pleading or other paper may be filed with the Commission in any proceeding as the result of, or addressed to, any statement or argument contained herein, except as the Commission may authorize.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

- - - -

PERIODIC MEETING WITH THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS)

- - - -

PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Thursday, September 9, 1993

The Commission met in open session,
pursuant to notice, at 2:00 p.m., Ivan Selin,
Chairman, presiding.

COMMISSIONERS PRESENT:

IVAN SELIN, Chairman of the Commission
KENNETH C. ROGERS, Commissioner
FORREST J. REMICK, Commissioner

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P-R-O-C-E-E-D-I-N-G-S

2:00 p.m.

CHAIRMAN SELIN: Good afternoon.

We're pleased to welcome members of the Advisory Committee on Reactor Safeguards to brief us on issues of mutual interest. We're particularly pleased to welcome Doctor William Shack, the latest addition to the Committee.

Today we'll hear from the Committee on three general issues. First, I understand that you'll be discussing the status of your review of the evolutionary and passive light water reactor designs, including the EPRI utility requirements document and selected policy issues associated with these designs. You last discussed the status of these reviews with us on May 14th of this year. Since then, we understand you visited the GE facility in San Jose in addition to your subcommittee meetings and we're particularly interested in whether or not you got satisfactory answers to the questions that you need to proceed.

We appreciate all of the effort, review and comments that you've spent on the advanced reactor designs to date. We rely on your considerable technical expertise in review of these advanced designs and in considering the key technical issues

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1 entrance to the room.

2 Commissioners?

3 COMMISSIONER ROGERS: Fine.

4 CHAIRMAN SELIN: Fine.

5 Doctor Wilkins?

6 DOCTOR WILKINS: Thank you very much, Mr.
7 Chairman and Commissioners. We, as always, welcome
8 the opportunity to speak to you about issues that are
9 of interest to you as well as to us.

10 I'd like to, if I may take 30 or 45
11 seconds just to comment on an initiative that the ACRS
12 is engaged in with the IRM. I used to know what IRM
13 stood for. Information Resources Management. All
14 right. Dealing with management systems and bringing
15 the ACRS into the 21st Century or something like that.
16 I know this is a subject that is of some interest to
17 you and I wanted to just advise you that we are
18 actively pursuing this --

19 CHAIRMAN SELIN: Good.

20 DOCTOR WILKINS: Particularly in
21 connection with the design of our facilities at the 2
22 White Flint Building which we hope to occupy sometime
23 next year.

24 Having said that, let's proceed to the
25 status of the ACRS review. There are several of these

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1 accident considerations and the PRA for the ABWR.
2 That's scheduled for the towards the end of this
3 month.

4 We also have scheduled in consideration of
5 the I&C design and the I&C DAC, the ABWR, and also as
6 time permits the other three DACs that are being
7 prepared for ABWR. There's also going to be as a part
8 of our Security Subcommittee meeting on November 3rd,
9 we'll include the security considerations for the
10 ABWR.

11 Our ABWR Subcommittee is still planning to
12 prepare a proposed draft of our ACRS report in January
13 and anticipation of full Committee's consideration in
14 February. However, we have a scheduling problem in
15 that we asked the staff to supply us draft final
16 safety evaluation reports as soon as possible to meet
17 the meetings that we have set up for October and
18 November. By and large at our meeting yesterday they
19 had provided a schedule that will provide most of the
20 information, but not all of the information that's
21 needed. There will still be several chapters that
22 will come in in December. We had not planned on
23 anything beyond November in terms of reviewing FSERs,
24 so we'll have to see where we can fit the December
25 material in. The next meeting that we had proposed

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1 ahead of your previous schedule?

2 MR. MICHELSON: No. That was our
3 schedule. No.

4 COMMISSIONER REMICK: I thought it was
5 March.

6 DOCTOR WILKINS: February is when the
7 Committee will start its discussion and March is when
8 we will finish it. We anticipate this will be a
9 fairly difficult letter to -- not difficult, lengthy
10 letter, detailed letter.

11 MR. MICHELSON: We left a pad in the
12 schedule to the extent that we hope to get it out in
13 February, but recognizing it may be March.

14 CHAIRMAN SELIN: I see a little bit of the
15 Charles Lamb line about, "I'm sorry this is such a
16 long letter. We didn't have time to write you a short
17 one."

18 MR. MICHELSON: I believe that those are
19 the only scheduler things that have happened. Now, I
20 would like to make a couple of comments and then other
21 members -- our Subcommittees on ABWR have been
22 attended by a vast majority of the membership, so
23 they're almost full Committee meetings.

24 For my own part, I think it's important to
25 convey concerns that are developing. First of all,

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1 which is right and that's it. But we ran into a great
2 deal of difficulty because they didn't seem to be well
3 prepared as to which was going to be right and at this
4 stage of the game there should be no doubt.

5 CHAIRMAN SELIN: Were they the same people
6 that you met with?

7 MR. MICHELSON: Oh, yes. Yes. So, I at
8 least felt kind of uneasy about the situation because
9 it then began to become an aggravation. As the day
10 wore on, we ended up quitting at 6:30 instead of 5:00.

11 MR. CARROLL: Carl, in response to the
12 Chairman's question, he said were they the same
13 people. I guess my perspective is that it was the
14 same project manager sort of people --

15 MR. MICHELSON: Yes.

16 MR. CARROLL: -- but I don't think we had
17 anything approaching the depth of technical people
18 that we had at San Jose.

19 MR. MICHELSON: No, no. That's the reason
20 for going to San Jose, of course, was to talk to the
21 people who are really doing the work. When we went --
22 the people yesterday were presumably just bringing
23 back the answers and I thought the representation was
24 probably right but I think -- I have a feeling that
25 they were not well prepared, for whatever reason.

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1 got to have drains or something."

2 CHAIRMAN SELIN: Sure.

3 MR. MICHELSON: The people who had ever
4 dealt with tunnels know you have to do something about
5 water.

6 CHAIRMAN SELIN: I think these are very
7 important points because this is a process that is
8 really without precedent. The idea is not to just get
9 some good answers one time or another, it's that the
10 Commission, and of course the Committee in advising
11 the Commission, has got to have high confidence that
12 designs have been well thought out, well understood.
13 Even with your thoroughness and your experience, all
14 you can do is audit the designs. I think these are
15 very important points that you bring up, Mr.
16 Michelson.

17 MR. MICHELSON: I think on the positive
18 side though, I believe they have a design that is
19 basically very good and I think they have done a good
20 job in many areas, but they have not been paying
21 attention to enough detail to make sure this thing
22 comes out scrubbed clean. This is a comment we gave
23 them several months ago when we started seeing a lot
24 of inconsistencies and were assured that this would
25 all appear in this final version cleaned up. And

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1 like to -- most of them attended yesterday. I don't
2 know if they share the same observations, but that's
3 it.

4 DOCTOR WILKINS: All right.

5 CHAIRMAN SELIN: Thank you very much, Mr.
6 Michelson.

7 DOCTOR WILKINS: Let's go on to the CE 80,
8 for which Jay Carroll is the appropriate subcommittee.
9 Jay is also the subcommittee chairman for the SBWR.
10 So, it might be convenient for him to talk about one
11 and then the other.

12 MR. CARROLL: All right, I'll do that.

13 I think since we last met with you we have
14 had no additional meetings on System 80+. We did --
15 or some of our members of the subcommittee did, on
16 April 13th, visit the dynamic mock-up of the 80+
17 control room in Winsor. That's worth seeing. That's
18 an interesting mock-up. It looks like a very good
19 control room.

20 I'm presently working with the assigned
21 ACRS staff engineers and with Combustion and the NRC
22 staff on putting together a schedule of meetings where
23 we will take up the SSAR. The first of these meetings
24 was tentatively scheduled for December 8th. As I
25 think I've mentioned before, we have had a number of

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1 MR. CARROLL: From our staff?

2 CHAIRMAN SELIN: From our staff, from both
3 the ACRS staff and from the NRC staff? I'm not
4 talking about the substantive reviews, I'm just
5 talking about the administrative support and
6 resources. We're asking you to do an awful lot in a
7 short amount of time and want to make sure that the
8 logistics are adequate to what you need.

9 MR. CARROLL: I certainly am because we
10 have one of our better ACRS staff members working on
11 it, Doug Coe.

12 CHAIRMAN SELIN: Mr. Michelson?

13 MR. MICHELSON: Yes, same way. We also
14 have a very good staff member working on it. Of
15 course, the NRC staff. I know of no case that I've
16 asked them to provide something that it wasn't
17 provided immediately. That's not where the problem
18 is.

19 CHAIRMAN SELIN: Okay. Thank you.

20 MR. CARROLL: Well, on SBWR we have had
21 some briefings of the subcommittee and I think the
22 full committee just to get a general idea of what the
23 design is all about. But to date, in terms of actual
24 subcommittee meetings, on anything other than that
25 it's been restricted to the thermal hydraulics issue.

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1 try to see about getting something? This is --

2 DOCTOR CATTON: Well, we ask and we don't
3 get anything.

4 COMMISSIONER REMICK: Have you looked at
5 the NRC confirmatory research for the SBWR thermal
6 hydraulics?

7 DOCTOR CATTON: Well, I really didn't know
8 much about it until I was at the National Heat
9 Transfer Conference a couple of weeks ago and some of
10 the losers in that game told me about it. So, I don't
11 know very much about it.

12 COMMISSIONER REMICK: I see. So, you
13 haven't looked at the test program?

14 DOCTOR CATTON: No. No.

15 COMMISSIONER REMICK: Okay.

16 DOCTOR WILKINS: It is a fact that the
17 ACRW was not in the loop on the Purdue facility and I
18 didn't learn about it until after Ivan learned about
19 it, for example.

20 DOCTOR CATTON: I suspect that we plan to
21 meet on Rosa, I think, somewhere near the end of
22 October and at that time we'll ask the Office of
23 Research to tell us a little bit about it.

24 CHAIRMAN SELIN: It was not clear to me
25 from whom you were not getting the answers that you --

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1 DOCTOR CATTON: Well, I was promised it
2 again when I -- I went on a trip with Doctor Murley
3 and Ashok Thadani to Italy. When I was there, the
4 person who promised again promised, but we still have
5 nothing.

6 MR. CARROLL: That was what, like a couple
7 of months ago?

8 DOCTOR CATTON: That was April.

9 COMMISSIONER REMICK: The isolation
10 condensers in the early BWRs did not have nitrogen
11 in --

12 MR. CARROLL: They're steam filled.

13 COMMISSIONER REMICK: Steam filled?

14 MR. CARROLL: No, they aren't. They're
15 not condensible gas filled if you don't vent them
16 because the hydrogen and oxygen will displace the
17 steam supply line.

18 COMMISSIONER REMICK: I think Ivan is
19 correct, it's the outlet valve that's closed. So, it
20 would be a combination of steam and --

21 DOCTOR CATTON: If there's some steam,
22 then it will start.

23 COMMISSIONER REMICK: To keep them on.

24 MR. CARROLL: Well, the way that was dealt
25 with on the early ones was to have a vent at the

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1 to use to verify the goodness of your tools and then
2 you've got to put it all together and predict the
3 behavior of the full size system. Yet we have had a
4 lot of difficulty in getting documentation from them
5 that tells us how they decided on what the experiment
6 is that they're going to use. These test facilities
7 are built and I believe some of them are actually in
8 operation, yet we don't have that information.

9 What that means to me is that there's
10 going to have to be a lot of comparison of code
11 calculations of data. If you go through the exercise
12 in a systematic way, you can argue that you don't need
13 to do too much computation to verify your codes. But
14 if you just sort of build facilities and you've got to
15 exercise the facilities over a wider range and
16 demonstrate that your code can deal with it, in the
17 long run you have a better code, but it's a higher
18 price.

19 We plan to have two more meetings before
20 our review of the Westinghouse thermal hydraulics of
21 the AP-600 is completed. And not next week but the
22 following week we will go to Oregon State to review
23 their facility. We have the documentation on its
24 scaling, I believe, and we will have a second meeting
25 where we're going to bring all of this together to try

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1 DOCTOR WILKINS: Yes.

2 DOCTOR CATTON: I think so. As a matter
3 of fact, we've been working pretty much hand in hand
4 with the NRC staff in this area and I think when I
5 went with them to Italy and I wrote a trip report, I
6 think that the observations -- we were pretty much in
7 agreement.

8 CHAIRMAN SELIN: Okay. Thank you.

9 Doctor Wilkins?

10 DOCTOR WILKINS: Let's go on then to the
11 EPRI documents, the requirements documents, and that's
12 Charlie Wylie.

13 DOCTOR WYLIE: Okay. I'll comment on the
14 URDs. First we completed our review of the URD for
15 the evolutionary plant and wrote our report in August
16 of '92. The staff plans to issue a supplement to its
17 FSER and we plan to review that, comment on that when
18 we receive it. We don't know exactly when that will
19 be at this time. Regarding the URD for the passive
20 plant, we received the document some time ago and
21 individually have been reviewing those. We were
22 briefed by EPRI on those documents and we received the
23 staff draft safety evaluation report and at that time
24 there was something like 800 open items. So, we've
25 not had any subcommittee meetings. We're waiting for

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1 staff -- I mean that -- yes, the supplements to the
2 staff that go to issue on the SERs will include those
3 requirements. But otherwise, I think they correlate
4 pretty well.

5 CHAIRMAN SELIN: Thank you.

6 Doctor Wilkins?

7 DOCTOR WILKINS: Okay. Unless some of my
8 colleagues have anything more to say, I think that
9 disposes of the first item -- or you gentlemen have
10 any additional questions.

11 COMMISSIONER REMICK: I had a question
12 about are you doing anything in reviewing the staff's
13 analysis of the preliminary safety information
14 documents for MHTGR, advanced liquid metal reactor,
15 PIUS or CANDU-III? Have any of those --

16 DOCTOR WILKINS: We did have a
17 subcommittee meeting and a full committee meeting and
18 wrote you a letter on some of the policy issues that
19 are associated with those. That's been the last
20 activity that we've engaged in. Since that time, as
21 you know, the Department of Energy has thrown cold
22 water on some of the concepts that it was financing.
23 That's not the way to say it, but you know what I
24 mean.

25 CHAIRMAN SELIN: Thermal shock is what you

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1 time it's something that would be very helpful on the
2 presumption that you have had some continuous
3 knowledge over the years. Certainly back some years
4 ago ACRS looked at what I guess was the preliminary
5 safety evaluation reports on both of those designs and
6 I think there have been some modifications to the
7 designs since that date. I must admit I wouldn't say
8 that from the standpoint of the other items you've
9 just talked about, the four other reviews, I wouldn't
10 personally put a high priority, but as a tidying up
11 operation I think it would be very helpful.

12 I don't know how others feel.

13 DOCTOR WILKINS: I share those views
14 myself.

15 CHAIRMAN SELIN: It's something to do on
16 a long airplane ride, but not to interfere with --

17 DOCTOR WILKINS: All right.

18 CHAIRMAN SELIN: I'd like ask you, before
19 we get off this topic. This whole topic of design
20 certification, the interaction between the vendors,
21 the staff and the Committee was laid out a long time
22 ago and we had only the vaguest idea as to what we
23 would be doing. I get the impression from your
24 reports that this is crystallizing pretty well, that
25 the different efforts are coming together quite well.

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1 just make a general horseback observation, do you feel
2 that the process as you see it for the review of the
3 advanced designs is coming to closure? Do you see
4 that it's closing or do you see it as stalled out in
5 some way?

6 DOCTOR WILKINS: Let me give you just a
7 yes.

8 COMMISSIONER ROGERS: Are there
9 differences between different designs?

10 DOCTOR WILKINS: There's a lot of
11 difference in the various designs.

12 COMMISSIONER ROGERS: Well, let's pick the
13 ABWR.

14 DOCTOR WILKINS: It wouldn't surprise me
15 if we ultimately look at these advanced designs like
16 PRISM and the MHTGR, that that process will turn out
17 two years from now to look different than it does
18 today.

19 COMMISSIONER ROGERS: Yes.

20 DOCTOR WILKINS: But with respect to the
21 ABWR and the CE System 80+, I think it's pretty much--

22 CHAIRMAN SELIN: Well, we shouldn't be
23 congratulating ourselves until it's over.

24 DOCTOR WILKINS: Yes, indeed.

25 CHAIRMAN SELIN: But really you're ability

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1 I've since had conversations with the staff, however,
2 and it was really just a misunderstanding. I now
3 believe that although we don't really agree, the
4 issues that we've raised will be addressed.

5 I might mention I joined Ashok Thadani and
6 Jack Kudrick in their visit to Siemens where we spent
7 a good deal of time talking to the people there with
8 respect to how they dealt with hydrogen. They've
9 dealt with a great many of the issues that we have
10 raised already and they've done it in a rather
11 complete way. I think that the trip reports that come
12 out of this will be interesting reading. They've done
13 things like laid down prescriptions for where to put
14 ignitors and how many ignitors or how many of these
15 catalytic hydrogen burners do you need in order to
16 achieve a certain result. I think they've done a very
17 good job. We have no disagreement with the staff.

18 MR. CARROLL: That's circa the last week
19 or two when you were with them in Europe.

20 DOCTOR CATTON: That's correct. The
21 letter was a little unsettling, but that got taken
22 care of right away.

23 COMMISSIONER REMICK: Since you wrote that
24 letter, the Commission has addressed 20 of those
25 issues. Any comments?

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1 requirements for those interconnecting ventilation
2 systems and we have yet to get any real answers from
3 them. It relates to the same problem as with the
4 doorways between divisions. We didn't do too well
5 there either. But these are still being pursued.
6 They promised to get back with us with a response and
7 then we'll see. But I was surprised you didn't pick
8 up on it at all, unless you agree with the
9 acceptability of interconnecting ventilation systems,
10 unless they felt that we would keep the staff's feet
11 to the fire anyway and the vendors. More
12 appropriately the vendors.

13 DOCTOR WILKINS: Found it?

14 MR. MICHELSON: No. I don't know if we've
15 got a copy of it.

16 DOCTOR WILKINS: The copy of the SRM?
17 Here, it's page 22 of this one.

18 MR. MICHELSON: Well, that doesn't have
19 pages on it.

20 DOCTOR WILKINS: Sure it does.

21 MR. MICHELSON: Does it? All right.
22 Maybe I'm wrong. Yes, you're right.

23 DOCTOR WILKINS: I apologize for the
24 confusion, Mr. Chairman.

25 The last of the -- well, let me back up.

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1 DOCTOR LEWIS: And so forth. The other
2 comment you made at the very beginning about not
3 having enough time to write a short letter, you've
4 looked at the regulatory review report. You obviously
5 didn't give them enough time. It's about that thick,
6 so none of us have read it.

7 But, in any case, we did write you a
8 letter in July on this subject. We had a variety of
9 briefings from the people. We spoke to them. We
10 talked about it among ourselves and it's clear that,
11 if we were to address that report at anything like the
12 level of detail that's being lavished on some other
13 subjects, we would be here for months.

14 So it's just not possible, nor was it
15 possible for us at subcommittee meetings or at full
16 committee meetings to talk about all the details, so
17 we tried to function as an advisory committee and
18 isolate the big picture from the details, especially
19 bearing in mind that we anticipated that there would
20 be a fair amount of -- I won't say "resistance," but
21 staff response to some of the detail proposals, and
22 that in fact if anything were implemented they were
23 bound to change appreciably over a period of time, so
24 there's no point in wasting your time or our time on
25 it. So what we did instead was to try to ask what the

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1 informal directives, commitments written into the
2 plant licenses, all sorts of things that make a body
3 of rules, not really rules but a body of commitments
4 that the licensees have to deal with.

5 As we view it, these things are really not
6 required in the sense that the regulations are
7 required or in the sense that your safety goals are
8 supposed to be the underlying policy. They just
9 exist. For example, if you speak of regulatory
10 guides, the reg guides to people, almost everybody --
11 it's almost like blessing Stalin. Almost everybody
12 says, "Well, of course, they're not really required.
13 They're just a way to satisfy the NRC staff." But if
14 you say to a licensee that it's just a way to satisfy
15 the NRC staff, they say "Yes, they're not required,
16 ho, ho, ho," and everybody knows they really are
17 required. You can get away with not conforming to
18 them if you have a good case and are willing to put in
19 the time and jeopardize the livelihood of your
20 stockholders, but it's an uphill struggle if you do.

21 So there is, on top of the regulations,
22 this extra structure, and this is leaving aside a
23 thing that people have always complained about which
24 is sort of informal direction, of which everyone who
25 visits a plant hears lots of horror stories. You

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1 The way we do that in law, of course, is
2 that that's, of course, the way it is with laws too
3 and with court decisions. They're sort of challenged
4 on a sampling basis from time to time to see whether
5 they conform to the underlying laws or to the
6 Constitution and the last analysis. Not in every
7 case, but it's done on a sampling basis.

8 If you were to make that declaration, it
9 would -- and we don't recommend that you do it, but we
10 recommend that you take it seriously -- you would
11 essentially switch the structure of regulation within
12 the agency by edict because right now conformity to
13 the case law is the driving force. The people who go
14 out and look at the plants, people who regulate the
15 inspectors are enforcing the case law, they're
16 enforcing the positions that have been taken and
17 written down, the commitments that have been made by
18 the licensees and so forth. A simple declaration that
19 all these are adjuncts to the set of rules and
20 regulations might be significant and we wrote that in
21 our letter.

22 The second issue would be hot to go beyond
23 a declaration, how to make procedural changes that
24 would implement such a statement. Obviously you
25 cannot be in a position in which everybody who does

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1 erecting and enforcing the structure that we now have
2 are most defensive of it and most unwilling to see
3 change. That's an important fact for you.

4 The others have an open mind. I don't
5 think it's fair to describe the Committee's position
6 as one of saying you should obey instantly, but it's
7 one that says you should not say, "Aw shucks, this has
8 been looked at so many times," and just let it go by
9 the board. This looks like a serious one. It's in a
10 direction that is a healthy direction, I think by
11 nearly everybody's evaluation. How you go about being
12 proactive on it I really don't know. We have other
13 subjects that suffer from that same problem --

14 CHAIRMAN SELIN: Sure.

15 DOCTOR LEWIS: -- but we would urge you to
16 take it seriously. That's the end of my speech.

17 MR. CARROLL: I would add to this that my
18 understanding is that there's quite a bit of industry
19 activity --

20 CHAIRMAN SELIN: Absolutely.

21 MR. CARROLL: -- that this would very much
22 support and be congruent with.

23 DOCTOR LEWIS: That's right, and I should
24 have said that.

25 CHAIRMAN SELIN: Well, what's happening

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1 so forth?

2 CHAIRMAN SELIN: Yes, sir.

3 MR. CARROLL: Yes, I personally do and I
4 think I've seen some red herrings thrown up about it.
5 Obviously you couldn't allow a utility to change its
6 emergency plan and only tell us about it once a year.
7 Well, I don't think anybody has a problem keeping the
8 emergency planning up to date on either side. The
9 same with security. So, I personally have always
10 viewed it that way. I haven't always won my arguments
11 with the NRC when I had a licensee hat on, but I
12 always thought that these things should be approached,
13 a graded sort of thing compared to more substantial
14 safety issues.

15 DOCTOR WILKINS: I might comment, Mr.
16 Chairman, that the Committee really didn't address the
17 issue that you've raised as a Committee. So, you get
18 Jay's personal opinion and I'll give you mine right
19 now, which is that I think there are a number of areas
20 into which 50.54 could be extended. I'm not sure I'd
21 know how to characterize them, and that's part of the
22 fact that we haven't really sat down and come to grips
23 with the details of the RRG report.

24 CHAIRMAN SELIN: Well, 50.54 really is a
25 precursor of performance-oriented regulation. It

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1 that. I don't have any experience to know if this is
2 true or not.

3 DOCTOR WILKINS: I'll make the same
4 general comment I just made. We really haven't
5 discussed that in any detail as a Committee. The
6 program to create additional case law though strikes
7 me as incompatible with the program to reduce the
8 impact of case law. It's a different way to solve the
9 same problem. But I have a feeling that you need to
10 decide or someone needs to decide which way to go. If
11 the way to go is to give the licensee more license, so
12 to speak, to do the things that will produce the
13 desired results, then you don't pursue this other
14 course. On the other hand, if as a matter of
15 practical tactics it's felt that that's not feasible,
16 then perhaps encouraging the licensees to come in with
17 specific suggestions, specific license amendments and
18 so on, and creating an environment within the NRC and
19 the industry that gives some expectation that these
20 requests will be considered quickly and expeditiously,
21 that's a different way to approach the same problem.

22 If I were sitting in your seat, I wouldn't
23 want to do them both. I'd try to decide which way I
24 wanted to go. I think there's some danger of mixing
25 them up. You might get some nice fruit salad, but

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1 MR. CARROLL: I had nothing.

2 CHAIRMAN SELIN: Gentlemen?

3 COMMISSIONER REMICK: I might make a
4 comment --

5 DOCTOR LEWIS: I think your lawyer wants
6 to say something.

7 COMMISSIONER REMICK: Oh, yes, please.

8 MR. SCINTO: I just wanted to make a
9 comment. Some discussion has used the term "case
10 law." In the context of this, I think it is fairly
11 fair that the kind of discussion we're talking about
12 was the day to day application or implementation or
13 guidance by the agency as a whole and that does have
14 a different status than its regulations. But the
15 Commission's formal adjudicatory decisions, case law
16 in that sense, has a status and dignity of --

17 CHAIRMAN SELIN: Precise meaning.

18 MR. SCINTO: -- roughly the same status
19 and dignity as its regulations. So, in that sense --

20 DOCTOR WILKINS: I don't think there's any
21 disagreement between us. We were not using the --

22 MR. SCINTO: That's what I understood, but
23 I just wanted to make the record clear because we're
24 using case law in a different sense.

25 DOCTOR LEWIS: Just to make sure I

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1 people that are presently in industry, I think you
2 find most of them say, "I don't have any problem with
3 the regulations. They're never even an issue. It's
4 the implementation of the silly things." That's the
5 point, I think, that Frank Gillespie and company
6 really did a nice job of focusing on and providing at
7 least a mechanism for dealing with.

8 COMMISSIONER REMICK: Yes, I agree --

9 DOCTOR LEWIS: Well, sometimes -- I'm
10 sorry.

11 COMMISSIONER REMICK: Go ahead, Hal.
12 Please go ahead.

13 DOCTOR LEWIS: I was just going to say
14 that sometimes the application is very idiosyncratic
15 and very personalized and sometimes not even by the
16 NRC. We've been through recently a number of events
17 that have to do with good old digital upgrade things.

18 MR. CARROLL: I thought you promised, Hal,
19 not to --

20 DOCTOR LEWIS: In which we've heard from
21 industry about review teams having come out which
22 consists of two NRC people and three contractors to
23 NRC in which the contractors are functioning as
24 appliers of standards to the utilities and have just
25 as much push as the NRC does itself. So, that's

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1 it's in the right direction and I think the advice
2 that you've given us, now it's up to us to see that
3 something is done with these recommendations is the
4 proper type of use for the Committee in this situation
5 faced with the many other responsibilities and
6 activities that you have underway.

7 So, I think, at least from my own
8 perspective, although I certainly welcome any comments
9 you have in any detail, I'm not sure that that's the
10 best use of your time at this particular time in your
11 overall activity.

12 While I have the floor out of order here,
13 I would add comments to the -- that Chairman Selin
14 made. I really sincerely appreciate the effort that
15 you folks have put into the review of the new designs.
16 You really have made contributions and they've been
17 very, very helpful to the Commission and I'm sure to
18 the staff.

19 One thing I'm impressed as I travel around
20 and thinking of international travel, and I know the
21 other Commissioners experience the same thing.
22 Everywhere you go in the world, people know about this
23 process and are very curious about is it working and
24 how it's working. That's true in China also.
25 Detailed interest about how the process is going,

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1 substantive issues since they are very important right
2 now and an awful lot is riding on pieces coming
3 together in a simultaneous time.

4 Thank you very much.

5 (Whereupon, at 3:10 p.m., the above-
6 entitled matter was concluded.)
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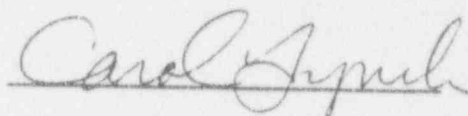
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