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APRIL 7-10, 1999

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Reports, Letters, or Memoranda

REPORTS

- Proposed Final Revision to 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (Report to Shirley Ann Jackson, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated April 14, 1999)

RSO1

- Status of Efforts on Revising the Commission's Safety Goal Policy Statement (Report to Shirley Ann Jackson, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated April 19, 1999)

LETTERS

- Reevaluation of the Generic Safety Issue Process (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated April 19, 1999)
- SECY-99-017, "Proposed Amendment to 10 CFR 50.55a" (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated April 19, 1999)
- Status of Resolution of Steam Generator Tube Integrity Issues (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated April 22, 1999)
- Proposed Revisions to the NRC Generic Communications Process (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated April 23, 1999)

MEMORANDA

- Final Rule: "Respiratory Protection and Controls to Restrict Internal Exposures, 10 CFR Part 20" (Memorandum to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, dated April 14, 1999)
 - Proposed Rule on AP600 Design Certification (Memorandum to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, dated April 15, 1999)
- A. Reconciliation of ACRS Comments and Recommendations
 - B. Report on the Meeting of the Planning and Procedures Subcommittee Held on April 6, 1999 (Open)
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- II. Meeting Schedule and Outline
- III. Attendees
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MINUTES OF THE 461ST MEETING OF THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
APRIL 7-10, 1999
ROCKVILLE, MARYLAND

The 461st meeting of the Advisory Committee on Reactor Safeguards was held in Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on April 7-10, 1999. The purpose of this meeting was to discuss and take appropriate action on the items listed in the following meeting minutes. The meeting was open to public attendance. 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., 1025 Connecticut Avenue, N.W., Suite 1014, Washington, DC 20036.

ATTENDEES

ACRS Members: Dr. Dana A. Powers (Chairman), Dr. George Apostolakis (Vice-Chairman), Mr. John Barton, Dr. Mario V. Bonaca, Dr. Mario H. Fontana, Dr. Thomas S. Kress, Dr. Don W. Miller, Dr. William J. Shack, Dr. Robert L. Seale, Dr. Robert E. Uhrig, and Dr. Graham Wallis. [For a list of other attendees, see Appendix III.]

I. CHAIRMAN'S REPORT (Open)

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

Dr. Dana A. Powers, Committee Chairman, convened the meeting at 1:00 p.m. and reviewed the schedule for the meeting. He introduced Stan Puchalla from the Department of Energy. Mr. Puchalla attended this meeting as a visitor at the request of the Defense Nuclear Facilities Safety Board to examine how ACRS conducts business and whether this kind of structure may be useful for the evaluation of DOE's nuclear explosives safety studies. Other administrative issues were brought to the attention of Committee.

II. Draft Commission Paper on Proposed Improvements to the Generic Communication Process (Open)

[Note: Mr. Michael T. Markley was the Designated Federal Official for this portion of the meeting.]

Dr. Mario Fontana, cognizant ACRS Member, introduced this topic to the Committee. He stated that the purpose of this meeting was to discuss the proposed improvements to the NRC generic communications process. He noted that the revision was developed in response to concerns raised by the nuclear power industry and members of the U.S. Senate and the industry concerning the staff's use of compliance exemptions of the backfit rule and the requirement of 10 CFR 50.54(f) in Bulletins (BLs) and Generic Letters (GLs).

NRC Staff Presentation

Mr. Tad Marsh, NRR, led the discussions for the NRC staff. Mr. John Tappert, NRR, provided supporting discussion. Significant points made during the presentation include:

- The proposed Commission paper addresses associated with the NRC generic communications process. The staff met frequently with the Nuclear Energy Institute (NEI) to solicit industry input and to ensure that the NRC recommendations provide for a more orderly, predictable, and efficient generic communications process.
- An issue being addressed is the NRC use of compliance backfits (exceptions) per 10 CFR 50.109. Most generic communications invoke the compliance exception to the backfit rule. The NRC plans to work more closely with the industry on this matter but expects to continue to use compliance backfits, as needed.
- Another issue is the apparent routine use of 10 CFR 50.54(f) for the purpose of gathering information. The staff proposes to only use 10 CFR 50.54(f) for cases where the NRC is credibly contemplating possible modification, suspension, or revocation of a license.
- A new generic communications media called Regulatory Information Letters (RILs) are proposed to address a broad range of communications needs

including the integration of industry activities. These RILs are intended to serve the needs previously accomplished by Administrative Letters. Information Notices will continue to be used much as they have been in the past.

- NRC Bulletins are proposed to be the only routine generic communications media considered "Category 1" to address urgent safety concerns. Generic Letters will continue to request information but will not be used for Category 1 concerns.

The Nuclear Energy Institute (NEI) Presentation

Mr. Alex Marion, NEI, stated that the industry was in general agreement with the staff's proposed revisions to the generic communications process. He stated that the frequent early meetings with the staff had been productive in highlighting the important issues of concern and that the staff had been responsive in addressing them. Significant points made during the presentation include:

- Industry has some confusion regarding the proposed use of RILS as a new generic communications media. There continues to be a need to clarify the distinction between NRC Generic Letters, Bulletins, and RILS.
- It is not altogether clear how licensees will be given credit for voluntary initiatives including Direction Setting Issue 13 (DSI-13), Role of the Industry.

Dr. Apostolakis questioned whether core damage frequency (CDF) was used as a *de facto* goal. The staff stated that risk is a consideration in making decisions regarding the need for backfits but noted that there is no regulatory requirement for using CDF (i.e., voluntary per Regulatory Guide 1.174).

Dr. Powers questioned how the compliance backfit was linked to adequate protection. The staff stated that adequate protection was considered to be satisfied when the regulations were met. The staff added that the compliance backfit exception was necessary to ensure that the regulations were met for selected safety issues. The staff reiterated that compliance backfits will continue to be needed and used under the proposed generic communications process.

The Committee extensively discussed the invocation of 10 CFR 50.54(f) in requesting information from licensees. The staff reiterated that, in the future, 10

CFR 50.54(f) will normally be used only for situations where the NRC may be contemplating modifying, suspending, or revoking a license. Therefore, most generic communications media will not require written statements signed under oath and affirmation as is required under 10 CFR 50.54(f). The staff stated that NRC Bulletins will require written response from licensees to address urgent safety concerns but will not require oath and affirmation. Generic letters and RILs will be used for less significant issues warranting attention by licensees. NEI suggested that NRC Bulletins be used only for hardware issues and that more meetings with the NRC staff were needed to clarify the use of RILs.

Conclusion

The Committee issued a letter to the Executive Director for Operations, dated April 23, 1999, on this matter.

III. Steam Generator Tube and Reactor Pressure Vessel Integrity Issues (Open)

[Note: Mr. Noel F. Dudley was the Designated Federal Official for this portion of the meeting.]

Introduction

Dr. William Shack, Chairman of the Subcommittee on Materials and Metallurgy, summarized the information presented at the March 24-25, 1999 Materials and Metallurgy Subcommittee meeting. He noted that the Subcommittee heard presentations regarding steam generator tube integrity, Boiling Water Reactor Vessel and Internals Project (BWRVIP) activities, Pressurized Water Reactor (PWR) Materials Reliability Project activities, reactor pressure vessel integrity, status of the American Society of Mechanical Engineers (ASME) Special Working Group on Seismic Rules, proposed revisions to 10 CFR 50.55a "Codes and Standards," and a proposed approach for revising 10 CFR 50.61 the pressurized thermal shock rule. Dr. Shack explained that the staff would present summaries of the more controversial issues.

NRC Staff Presentation

Mr. Thomas Scarbrough, NRR, presented background information on the development of the proposed amendment to 10 CFR 50.55a and summarized the current regulatory requirements. He explained that, based on public comments

concerning the proposed amendment, the staff has recommended the elimination of the 120-month update requirement. Mr. Scarbrough identified the issues related to the proposed amendment and presented the schedule for issuing the proposed final rule. The Committee Members and the staff discussed the following:

- effects of the proposed amendment on the license renewal process,
- elimination of the 120-month update requirement,
- requirements in foreign countries for periodically updating operating licenses,
- new degradation mechanisms that require modifying inspection methods, and
- proposed requirements for updating to an entire ASME edition or addenda.

Mr. Emmett Murphy, NRR, explained that all PWR licensees voluntarily agreed to implement the programmatic approach described in the Nuclear Energy Institute Report (NEI) 97-06, "Steam Generator Program Guidelines," which is conceptually similar to the programmatic approach described in draft Regulatory Guide (DG) 1074, "Steam Generator Tube Integrity." He stated that agreement can be reached between the staff and the industry on the technical issues and explained the options for resolving the open regulatory issues. Mr. Murphy noted that the Commission approved delaying the issuance of DG-1074 while the staff works with the industry to resolve the regulatory and technical issues. The Committee Members and the staff discussed the following:

- NRC review of new alternate repair criteria,
- improvements in steam generator inspection criteria,
- database of steam generator tube inspection results, and
- development of a probabilistic structural integrity criterion.

Mr. Steven Long, NRR, provided an explanation of when and why to consider risk when evaluating requests for relaxation of steam generator tube integrity regulatory requirements. He presented a table that summarized the current criteria, the reasons for the criteria, and the efficacy of the criteria in limiting the risk of tube failures. Mr. Long identified the proposed NEI modifications that would effect the risk of tube failures and described the associated technical issues. He explained the role of risk assessments in a risk-informed regulatory approach. The Committee Members and the staff discussed the following:

- use of qualitative and quantitative risk assessments,
- results of Japanese research concerning fission product deposition on tubes,

- use of core damage frequency as a measure of risk,
- licensee incentive to use probabilistic structural integrity criteria, and
- magnitude of uncertainties associated with probabilistic risk assessment results.

Conclusion

The Committee issued a letter to the Executive Director for Operations (EDO) dated April 19, 1999, on the proposed amendment to 10 CFR 50.55a. The Committee also issued a letter to the EDO dated April 22, 1999, on the status of resolving steam generator tube integrity issues.

The Committee decided to hear a presentation on NRC reactor pressure vessel integrity research activities associated with the pressurized thermal shock rule during a future meeting.

IV. Insights Gained from the Risk-Informed Pilot Applications (Open)

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

Introduction

Dr. Shack, Acting Cognizant Member, introduced this issue to the Committee. He noted that the staff would discuss the lessons learned from the risk-informed pilot applications. He said that the background material provided by NRR gives an interesting look at how the limitations of PRAs were dealt with in the processing of the pilots.

NRC Staff Presentation

Mr. Richard Barrett, NRR, introduced the presenters and provided opening comments. He stated that the staff requested time to provide this briefing to give the Committee the "big picture" relative to application of risk-informed regulation, and to discuss implementation of risk-informed concepts.

Mr. Mark Rubin, NRR, provided details of the lessons learned from the processing of risk-informed licensing actions (pilot applications) and discussed the staff's future expectations for use of risk-informed initiatives. He noted that with the processing

of the pilot applications, the staff has successfully completed the first phase of risk-informed pilot implementation.

Success elements of the staff's lessons learned for the risk-informed pilots include: validation of methods described in the regulatory guides/standard review plan sections, reduction in unnecessary licensee burden, maintenance of the current level of plant safety, improved operational flexibility, and reduction in the need for future licensee submittals. Areas of challenge or unfavorable findings include: more-than-expected impact on other regulatory requirements necessitating license exemption requests, and a lack of favorable cost/benefit for certain risk-informed licensee applications. The staff has made a number of improvements to its review process to expedite use of risk-informed initiatives, including the development of guidance for licensees to implement risk-informed improvements, absent prior staff review.

Future staff activities include: incorporation of the lessons-learned insights into the NRC's risk-informed guidance documents, proposed modifications to 10 CFR Part 50 in accordance with Commission guidance, working with stakeholders on completion of a PRA Standards Document and on the role of the industry's peer review process in determining PRA quality.

In response to questions from Dr. Apostolakis, NRR said that PRA quality has not been a significant impediment to implementing the risk-informed pilots. The staff plans to provide a report on the lessons learned from use of Regulatory Guide 1.174 by the end of this year. So far, no major problems have been experienced with the use of Regulatory Guide 1.174. In response a question from to Dr. Uhrig, Mr. Barrett stated that the turn-around time for processing a risk-informed application request is averaging at approximately eight months.

NEI Presentation

Mr. Biff Bradley, NEI, provided some industry observations on the industry's use of risk-informed initiatives. He discussed the topics of risk-informed in-service inspection, in-service testing, and technical specifications. He expressed concern that the NRC management has not been consistent in implementing its policy for risk-informed regulation. He did note however, that Commission leadership is crucial to ensure the success of this effort, and, to that end, the EDO Tasking Memorandum has been very effective. Regarding use of probabilistic risk

assessment (PRA), NEI said that the quality of PRAs has not been a major obstacle to staff approvals of risk-informed initiatives.

Dr. Miller asked if the industry and NRC can handle the burden associated with a significant increase in risk-informed application requests. Mr. Bradley responded affirmatively, noting that this effort is market driven and that 100 of 104 licensees are scheduled for certification of their PRAs via the Owners Group certification programs. Mr. Rubin also replied in the affirmative for the staff.

Conclusion

The Committee decided to further investigate the specifics of the staff's pilot applications during future meetings of the PRA Subcommittee. Dr. T. Kress, as Member at Large, was charged with coordinating the Committee's review of this matter.

V. Proposed Final Revision to 10 CFR 50.65(a) of the Maintenance Rule and an Associated Draft Regulatory Guide (Open)

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

Introduction

Mr. John J. Barton, Chairman of the Plant Operations Subcommittee, stated that the purpose of this meeting was to hear presentations and hold discussions with the representatives of the NRC staff and the NEI regarding the proposed final revision to the Maintenance Rule and an associated draft regulatory guide, which would require licensees to perform safety assessments prior to performing maintenance activities.

NRC Staff Presentation

Mr. Richard Correia, NRR, led the presentation for the NRC staff and stated that there has been no change in the revised proposed rule since the February briefing. He discussed briefly the associated draft regulatory guide. The draft regulatory guide will provide guidance for implementing the provisions of 50.65(a)(4). This draft regulatory guide is intended to provide acceptable methods in licensee implementation of pre-maintenance assessment processes to manage the risk from

maintenance activities. The intent of paragraph (a)(4) of the rule is to require licensees to perform risk assessments before maintenance activities are performed on structure, systems, or components (SSCs) and to manage risk that may result from the proposed activities. The guidance provided in the proposed draft regulatory guide stated that the assessments should consider the planned activities for SSCs included in the scope of the rule according to paragraph 50.65(b). Most emphasis should be placed on assessments of those SSCs modeled in the licensee's PRA, in addition to all SSCs considered to be risk significant by the licensee's maintenance rule expert panel. However, the licensee may perform a "one-time" assessment to identify those SSCs for which there would only be a low safety impact from the maintenance activities on these SSCs, or from the maintenance activity on these SSCs in combination(s) with any other maintenance activities within the scope of the rule. This one-time assessment would serve to reduce the burden of having to do an assessment each time maintenance is performed on these SSCs.

The staff plans to issue the revised regulatory guide for industry use before implementing the revised rule.

NEI Presentation

Mr. Biff Bradley, NEI, made the following points on the proposed revised rule:

- Assessments must be performed for all maintenance activities that could impact plant safety (e.g., transient initiators).
- Requests for deletion of Technical Specification Configuration Risk Management Program (CRMP) should be consistent with Regulatory Guide 1.177.
- Combinations of out-of-service low safety significant SSCs should be evaluated for the impact on plant safety.

Further, Mr. Bradley stated that the scope of the revised rule should be limited to high safety significant SSCs, which are ranked using the guidance in NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of the Maintenance at Nuclear Power Plants."

Conclusion

The Committee issued a report to Chairman Jackson dated April 14, 1999 on this matter.

VI. Proposed Approach for Revising the Commission's Safety Goal Policy Statement
(Open)

[Note: Mr. Michael T. Markley was the Designated Federal Official for this portion of the meeting.]

Dr. George Apostolakis, Chairman of the Subcommittee on Reliability and Probabilistic Risk Assessment (RPRA), introduced the topic to the Committee. He stated that the purpose of this meeting was to continue the Committee's review of NRC staff efforts to revise the Commission's Safety Goal Policy Statement. He noted that a joint meeting of the ACRS Subcommittees on RPRA and on Regulatory Policies and Practices was held on April 7, 1999, to discuss these matters. He stated that the staff plans to propose to the Commission that another year is needed in order to expand the scope of the Policy Statement to cover all NRC regulated activities, not just reactors. For this meeting, he stated that the Subcommittees requested the staff to discuss the proposed timetable for completing the proposed work and to highlight what could reasonably be accomplished in six months and a year.

NRC Staff Presentation

Mr. Thomas King, RES, led the discussions for the NRC staff. Messrs. Joseph Murphy, RES, and Richard Barrett, NRR, provided supporting discussion. Significant points raised during the presentation include:

- The staff proposes to develop an "overarching" Policy Statement for all NRC regulated activities including both reactor and non-reactor applications. An overarching Policy Statement would facilitate the implementation and consistency of risk-informed regulation. It would also promote public confidence.
- Items for consideration in developing an overarching Policy Statement include: qualitative goals for public, worker, and environmental protection; use of a 3-region approach for decision making; and guidelines for implementation (e.g., use of goals, treatment of uncertainties, and scope).

- The staff's schedule for completion would entail development of an initial high-level or "overarching" Policy Statement and associated list of questions/issues for discussion with stakeholders in August 1999, public meetings/workshops with stakeholders on the content September 1999 through March 2000, and recommendation in a paper to the Commission in July 2000.

Dr. Powers questioned why the staff does not challenge the definition of safety. He noted that critics of the NRC continuously say that the NRC has no definition for safety. The staff stated that the answer may be different depending on who is asked. The staff added that while some would like to see a number that is universally accepted all agree that performance can be better than has been accomplished in the past.

Dr. Wallis questioned why the NRC is now revisiting fundamentals after more than 30 years of commercial nuclear operations. Dr. Apostolakis informed Dr. Wallis that the ACRS previously recommended that the Safety Goal Policy Statement be revised. The staff noted that this recommendation was due, in part, to the realization of vulnerabilities in the movement toward risk-informed regulation. Dr. Wallis suggested that the risks must be measured. Drs. Bonaca and Seale suggested that risk be linked to the proposed inspection and assessment processes. Dr. Wallis stated that there should be a clear demonstration of benefits before embarking on such a project and suggested that the basis be risk-informed.

Dr. Apostolakis stated that there were major differences between reactor and materials licensees. He noted the differences in time scales between reactors and the proposed high-level waste repository. Dr. Powers noted that there was also a voluntary versus involuntary component relative to those who live near reactors and those who receive medical diagnosis/treatment with radioactive materials. The staff acknowledged that there are some challenges in developing a comprehensive overarching Policy Statement but noted that the such a Policy Statement would enhance regulatory coherence. Dr. Apostolakis stated that the overarching Policy Statement might be overly ambitious and suggested that the staff start with a set of high-level principles such as had been done for Regulatory Guide 1.174 (General Guidance) for risk-informed changes to the licensing basis. Dr. Miller agreed that it would be worthwhile to start with a good set of principles.

Dr. Kress stated that it is unlikely that the overarching Policy Statement can be accomplished in a year. Dr. Shack stated that such an overarching Policy

Statement may be a luxury for reactors and suggested that the overarching Policy Statement be pursued in parallel with the planned revision to the Safety Goal Policy Statement for reactors. The staff agreed to consider these suggestions.

Conclusion

The Committee issued a report to Chairman Jackson dated April 19, 1999, on this matter.

VII. Thermal-Hydraulic Phenomena Subcommittee Report

[Note: Mr. Paul A. Boehnert was the Designated Federal Official for this portion of the meeting.]

Dr. Graham Wallis, Subcommittee Chairman, briefed the Committee regarding the March 23, 1999 meeting of the Thermal-Hydraulic Phenomena Subcommittee. The meeting was held to continue the Subcommittee's review of the Electric Power Research Institute RETRAN-3D thermal-hydraulic (T/H) transient analysis code. The focus of this meeting was on the status of the NRC staff's review of the acceptability of this code. Key points noted by Dr. Wallis included:

- Dr. Novak Zuber has stated his intention to resign as a Consultant to the ACRS.
- The NRR staff has adopted a good approach to its review of RETRAN; it is running the code exhibiting a questioning approach to the evaluation and use of the code.
- The Subcommittee is concerned with the staff's lack of code review guidelines/acceptance criteria. These are under development in conjunction with the RETRAN review. Also, RETRAN has not been subject to a rigorous assessment using separate effects test data.
- The Subcommittee proposes to meet regularly with the staff (monthly) in order to maintain close coordination with both the progress of its RETRAN review and its program to develop code review acceptance criteria. A concern noted by the Subcommittee is that the staff's review of RETRAN may be impacted by schedule deadlines. Dr. Powers indicated that the

Subcommittee needs to avoid being seen as overseeing or directing the staff's work here.

- A number of problems have been uncovered by the staff's use of the code, including: a lack of clarity in user manuals, over specification of equations, a lack of range of validity for some models, inadequate references, questionable results for some of the kinetics calculations, and a significant "user effect".
- The Subcommittee believes that it is impractical to thoroughly review all aspects of these T/H codes. Rather, it sees its job to ensure the establishment of an adequate staff review process.

During Committee discussion, it was noted that the Subcommittee should investigate to ensure that the Code Scaling Applicability and Uncertainty evaluation methodology is applied to the codes under review by the staff. Dr. Powers suggested that the Subcommittee either focus on review of RETRAN or the development of code review guidelines. Mr. Caruso, NRR, suggested that the results of the RETRAN review could be used as a "stalking horse" for development of code acceptance criteria. Finally, Dr. Powers advised NRR to interact early-on with the ACRS so the Committee can provide timely advice, in lieu of schedule constraints.

VIII. Impact of the Use of High Burnup or Mixed Oxide Fuel on the Revised Source Term (Open)

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

In response to a Staff Requirements Memorandum dated March 5, 1999, the ACRS discussed the impact on the revised source term if high burnup or mixed oxide fuel were used in place of standard uranium fuel. The Department of Energy (DOE) is proposing to dispose of some fraction of the nation's excess weapons grade plutonium by converting it into mixed oxide (MOX) reactor fuel for use in commercial nuclear power plants. Existing NRC regulations does not include the use of MOX.

The Committee discussed the technical issues in the analysis of risk at nuclear power plants using MOX. These issues include the vulnerability of fuel to core disruption and the different inventory of radionuclides available for release from the

fuel during accidents. The difference in neutronics of MOX and conventional fuels also poses safety issues for consideration.

Conclusion

The Committee will continue to follow this matter during its May 1999 meeting.

IX. Relationship and Balance Between PRA Results and Defense-in-Depth (Open)

[Note: Mr. Michael T. Markley was the Designated Federal Official for this portion of the meeting.]

Dr. Kress, Chairman of the ACRS Subcommittee on Regulatory Policies and Practices introduced the topic to the Committee. He noted that the Commission had requested the Committee's views, in the Staff Requirements Memorandum (SRM) dated March 5, 1999, concerning the appropriate relationship and balance between probabilistic risk assessment results and defense-in-depth in the context of risk-informed regulation. He noted that the Committee had previously recommended, concerning the need for a spray system in the AP600 containment in an ACRS report dated June 17, 1997, that the NRC develop a policy statement on defense-in-depth. He offered a possible definition for defense-in-depth and stated that there is a need to identify regulatory objectives relative to risk-informed regulation.

The Committee discussed the historical development of defense-in-depth and the potential for arbitrary appeals to defense-in-depth that might adversely affect risk-informed initiatives. The Committee also noted that strict implementation of risk-informed regulation without appropriate consideration of defense-in-depth would not sufficiently address the uncertainty. The Committee considered possible positions and issues to be included in a draft report to the Commission. The Committee's response to the SRM is due May 17, 1999.

Conclusion

The Committee plans to prepare a report to the Commission during the May 5-7, 1999 ACRS meeting.

X. NRC Safety Research Program (Open)

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

The Committee continued its discussion of the 1999 report to the Commission regarding the NRC Safety Research Program. The Committee discussed several research areas needed to support Commission programs, particularly risk-informed regulation and license renewal. Other selected areas where changes have occurred or external events may have influenced the nature of the research program were also discussed.

Conclusion

The Committee plans to continue its discussion and deliberation on this matter during the May 1999 ACRS meeting.

XI. EXECUTIVE SESSION (Open)

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

A. Reconciliation of ACRS Comments and Recommendations

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

The Committee discussed the response from the NRC Executive Director for Operations (EDO) to ACRS comments and recommendations included in recent ACRS reports:

- The Committee discussed the response from the NRC EDO dated March 31, 1999 to the ACRS comments and recommendations included in the ACRS letter dated February 23, 1999 concerning proposed improvements to the NRC inspection and assessment programs.

The Committee decided to continue its review of this matter during the May 5-8, 1999 ACRS meeting.

461st ACRS Meeting
April 7-10, 1999

- The Committee discussed the response from the NRC EDO's dated March 26, 1999, to ACRS comments and recommendations in the ACRS report dated February 18, 1999, concerning questions to be addressed for possible resolution of key issues associated with the proposed revision to 10 CFR 50.59 (Changes, Tests and Experiments).

The Committee decided to continue its review of issues related to the proposed final revision to 10 CFR 50.59 during the May 5-8, 1999 ACRS meeting.

- The Committee discussed the response from the NRC EDO's dated March 26, 1999 to the ACRS comments and recommendations included in the ACRS letter dated February 19, 1999, concerning SECY-98-244, "NRC Human Performance Plan."

The Committee decided that it was satisfied with the EDO's response.

- The Committee discussed the response from the EDO dated March 31, 1999, to the ACRS comments and recommendations in the ACRS letter dated February 19, 1999, concerning resolution of Generic Safety Issue B-61, "Allowable ECCS Equipment Outage Periods."

The Committee decided to continue its review of issues related to the assessment of risk in the GSI process during future ACRS meetings.

B. Report on the Meeting of the Planning and Procedures Subcommittee (Open)

The Committee heard a report from Dr. Powers and the Executive Director, ACRS, on the Planning and Procedures Subcommittee meeting held on April 6, 1999. The following items were discussed:

- Review of the April ACRS meeting schedule, member assignments, and priorities for ACRS reports and letters

The Subcommittee discussed the schedule for the April ACRS meeting, member assignments, and priorities for ACRS reports and letters. In addition, the Subcommittee discussed potential letters, completion of which could be deferred for a month.

- Review of proposed activities scheduled for May, June, and July 1999 ACRS meetings, including structured discussions, and members' workload

The proposed activities scheduled for the May, June, and July 1999 ACRS meetings were discussed. The objectives of this discussion were to: (1) review the reasons for and the expected results from each activity and to recommend changes as appropriate; (2) make a preliminary distribution of members' workloads for these meetings; and (3) plan and schedule time for ACRS structured and topical discussions.

- License Renewal Activities Plan

The Subcommittee discussed a plan proposed by Dr. Fontana for reviewing Calvert Cliffs and Oconee license renewal applications and related matters. This plan was provided to the members during the March 1999 ACRS meeting for comment.

- Subcommittee Assignments and Tasks

The ACRS Subcommittee structure, membership and assigned tasks were reviewed and recommendations for changes made, as appropriate. The documents describing the current arrangement were distributed during the March 1999 ACRS meeting.

- Status of the 1999 ACRS Report on NRC Safety Research Program and Review of the EDO's response to the 1998 ACRS report

The Planning and Procedures Subcommittee will review the March 8, 1999, EDO response to the 1998 ACRS report on NRC sponsored safety research (NUREG-1635, Vol. 1) and recommend a course of action, as appropriate, during the discussion

- ACRS Participation in the March 23-24, 1999 ACNW meeting on Linear No-Threshold (LNT)

Dr. Powers participated in the March 23-24, 1999 ACNW meeting on LNT. The meeting minutes will be provided to the ACRS members

and a transcript will be available on the ACNW Web page. Topics that are being considered for inclusion in the ACNW report are as follows:

- A statement as to the state-of-the-art knowledge
- The need for an NRC involvement in the DOE research process
- The need for research that is directed at biological mechanism
- The need for research on the health effects of long-term LET dose
- A statement to the effect that a 100 mrem dose limit provides adequate protection of public health and safety
- Risk communications stating that health effects of low doses are small even if there is not a threshold.

- Status of Quadripartite Working Group and interactions with the ACSNI

An E-mail was sent to the ACSNI informing them of changes in ACRS meeting dates and reaffirming the ACRS interest in a joint meeting.

- Distribution of ACRS Consultant Reports (JTL/RPS)

The NRR staff or other meeting participants have on occasion requested ACRS consultant reports before release to the PDR. In the future, recommendations will be made to the cognizant subcommittee Chairman on what portions of these reports should be provided and what disclaimers should be made as to particular comments by the consultants.

- ACRS Policy for Reviewing Shutdown Plants

As per discussions during the March Planning and Procedures Subcommittee meeting, the ACRS follows the status of plants that have been shutdown for more than a year and considers the need for possible Committee action. A need for changing the current practice was discussed.

- Hydrogen Control Issues

During its March meeting, the Committee issued a March 23, 1999 "Larkinsgram" to the EDO stating that the ACRS decided to not review the staff's Safety Evaluation supporting use of passive autocatalytic recombiners at the Indian Point Unit 2 plant. The March 23 memorandum also made reference to the ACRS March 22, 1999 letter on the lessons learned from the AP600 Review in which the Committee recommended that better standards for qualification of catalytic hydrogen recombiners be required. The staff believes that conflicting messages have been sent and is uncertain of the Committee's intent for this matter.

The San Onofre licensee has requested an exemption to delete hydrogen control requirements from its licensing basis. This would impact the operability of the hydrogen recombiners, continuous on-line hydrogen monitors, and containment purge and vent capability (i.e., the relevant equipment would be abandoned in place). The Committee may schedule a review of this matter during its June or July meeting, subject to timely completion of the staff's review.

- Revision of Safety Goal Policy

The NRC staff plans to propose to the Commission that recommendations for revising the Safety Goal Policy be provided in June 2002 rather than July 1999. The additional time would be used to develop an "overarching" Safety Policy for the Commission. This Safety Policy would address recent Commission submittals in a variety of documents. It was proposed that the ACRS consider recommending the development of a new PRA implementation plan to support the agency's increased use of risk-informed regulations.

Commission action on the SECY paper on a risk-informed structure for NMSS regulations may be delayed. A discussion is needed as to whether to defer the scheduled May 11, 1999, joint ACRS/ACNW working group discussion.

461st ACRS Meeting
April 7-10, 1999

- Member Issues

Dr. Kress raised the issue as to the benefit of establishing criteria to decide whether a staff document should be reviewed prior to or after reconciliation of public comments. Mr. John Barton agreed to take the lead in developing guidelines that the ACRS can use in deciding at what point the ACRS will review a staff document.

C. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 462nd ACRS Meeting, May 5-8, 1999.

The 461st ACRS meeting was adjourned at 1:00 p.m. on April 10, 1999.

including the reasons why the requestor should be permitted a hearing with particular reference to factors set out in § 2.1205(h);

2. The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and

3. The circumstances establishing that the request for a hearing is timely in accordance with § 2.1205(d).

In accordance with 10 CFR 1205(f), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, Kerr-McGee Corporation, Kerr-McGee Center, P.O. Box 25861, Oklahoma City, OK 73125, Attention: Mr. Jeff Lux, and

2. The NRC staff, by delivery to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail, addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Dated at Rockville, Maryland, this 26th day of March 1999.

For the U.S. Nuclear Regulatory Commission.

John W.N. Hickey,
Chief, Low-Level Waste and Decommissioning
Projects Branch, Division of Waste
Management, Office of Nuclear Material
Safety and Safeguards.

[FR Doc. 99-8028 Filed 3-31-99; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards; Meeting Notice

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 April 7-10, 1999, in Conference Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The date of this meeting was previously published in the Federal Register on Wednesday, November 18, 1998 (63 FR 64105).

Wednesday, April 7, 1999

1:00 p.m.-1:15 p.m.: *Opening Remarks by the ACRS Chairman (Open)*—The ACRS Chairman will make opening remarks regarding the conduct of the meeting.

1:15 p.m.-2:45 p.m.: *Draft Commission Paper on Proposed Improvements to the Generic Communications Process (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the draft Commission Paper

on proposed improvements to the Generic Communications Process.

3:00 p.m.-4:30 p.m.: *Steam Generator Tube and Reactor Pressure Vessel Integrity Issues (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the status of ongoing regulatory activities associated with steam generator tube integrity; the staff's draft safety evaluation of Boiling Water Reactor Vessel and Internals Project-14 (BWRVIP-14), "Evaluation of Crack Growth in BWR Stainless Steel Reactor Pressure Vessel Internals;" suggested changes to 10 CFR 50.61, pressurized thermal shock rule; and related matters.

4:45 p.m.-7:15 p.m.: *Preparation of ACRS Reports and the ACRS Bylaws (Open)*—The Committee will discuss proposed ACRS reports, including a proposed report on the NRC Safety Research Program. Also, the Committee will discuss proposed revisions to the ACRS Bylaws.

Thursday, April 8, 1999

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

8:35 a.m.-10:00 a.m.: *Insights Gained from the Risk-Informed Pilot Applications (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) regarding the insights gained from the risk-informed pilot applications, including those from the pilots for inservice inspection, extension of allowed outage times, and online maintenance.

10:15 a.m.-11:45 a.m.: *Proposed Final Revision to 10 CFR 50.65(a) of the Maintenance Rule and an Associated Draft Regulatory Guide (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and NEI regarding the proposed final revision to 10 CFR 50.65(a) of the Maintenance Rule that would require licensees to perform safety assessments prior to performing maintenance activities, and an associated draft Regulatory Guide.

12:45 p.m.-2:15 p.m.: *Proposed Approach for Revising the Commission's Safety Goal Policy Statement (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the staff's proposed approach for revising the

Commission's Safety Goal Policy Statement.

2:30 p.m.-6:15 p.m.: *Preparation of ACRS Reports (Open)*—The Committee will discuss proposed ACRS reports.

Friday, April 9, 1999

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

8:35 a.m.-10:00 a.m.: *Preparation of ACRS Reports (Open)*—The Committee will continue its discussion of proposed ACRS reports.

10:00 a.m.-10:30 a.m.: *Subcommittee Report (Open)*—The Committee will hear a report by the Chairman of the Thermal-Hydraulic Phenomena Subcommittee regarding matters discussed during the March 23, 1999 meeting.

10:45 a.m.-11:45 a.m.: *Impact of the Use of High Burnup or Mixed Oxide Fuel on the Revised Source Term (Open)*—The Committee will discuss the proposed ACRS response to a Commission request, included in the March 5, 1999 Staff Requirements Memorandum (SRM), that the ACRS consider the impact of the use of high burnup or mixed oxide fuel on the revised source term.

1:00 p.m.-2:00 p.m.: *Relationship and Balance Between PRA Results and Defense-In-Depth (Open)*—The Committee will discuss the proposed response to a Commission request, included in the March 5, 1999 SRM, that the ACRS consider the appropriate relationship and balance between PRA results and defense-in-depth in the context of risk-informed regulation.

2:00 p.m.-2:15 p.m.: *Reconciliation of ACRS Comments and Recommendations (Open)*—The Committee will discuss the responses from the NRC Executive Director for Operations (EDO) to comments and recommendations included in recent ACRS reports and letters. The EDO responses are expected to be provided to the ACRS prior to the meeting.

2:15 p.m.-3:00 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 ACRS business, and organizational and personnel matters relating to the ACRS. [Note: A portion of this session may be closed to discuss organizational and personnel matters that relate solely to the internal personnel rules and practices

of this Advisory Committee, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

3:15 p.m.—4:00 p.m.: Future ACRS Activities (Open)—The Committee will discuss the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future meetings.

4:00 p.m.—7:00 p.m.: Preparation of ACRS Reports (Open)—The Committee will continue its discussion of proposed ACRS reports.

Saturday, April 10, 1999

8:30 a.m.—2:00 p.m.: Preparation of ACRS Reports (Open)—The Committee will continue its discussion of proposed ACRS reports.

2:00 p.m.—2:30 p.m.: Miscellaneous (Open)—The Committee will discuss matters related to the conduct of Committee activities and matters and specific issues that were not completed during previous meetings, as time and availability of information permit.

Procedures for the conduct of and participation in ACRS meetings were published in the Federal Register on September 29, 1998 (63 FR 51968). In accordance with these procedures, oral or written views may be presented by members of the public, including representatives of the nuclear industry. Electronic recordings will be permitted only during the open portions of the meeting and questions may be asked only by members of the Committee, its consultants, and staff. Persons desiring to make oral statements should notify Dr. Richard P. Savio, Associate Director for Technical Support, five days before the meeting, if possible, so that appropriate arrangements can be made to allow 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 contacting the Associate Director for Technical Support 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 Associate Director for Technical Support if such rescheduling would result in major inconvenience.

In accordance with Subsection 10(d) Pub. L. 92-463, I have determined that it is necessary to close portions of this

meeting noted above to discuss matters that relate solely to the internal personnel rules and practices of this Advisory Committee per 5 U.S.C. 552b(c)(2), to discuss information provided in confidence by a foreign source per 5 U.S.C. 552b(c)(4), and to discuss information the release of which would constitute 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 canceled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor, can be obtained by contacting Dr. Richard P. Savio, Associate Director for Technical Support (telephone 301/415-7363), between 7:30 a.m. and 4:15 p.m. EST.

ACRS meeting agenda, meeting transcripts, and letter reports are available for downloading or viewing on the internet at <http://www.nrc.gov/ACRSACNW>.

Videoteleconferencing service is available for observing open sessions of ACRS meetings. Those wishing to use this service for observing ACRS meetings should contact Mr. Theron Brown, ACRS Audio Visual Technician (301-415-8066), between 7:30 a.m. and 3:45 p.m. EST at least 10 days before the meeting to ensure the availability of this service. Individuals or organizations requesting this service will be responsible for telephone line charges and for providing the equipment facilities that they use to establish the videoteleconferencing link. The availability of videoteleconferencing services is not guaranteed.

Dated: March 25, 1999.

Andrew L. Bates,
Advisory Committee Management Officer.
[FR Doc. 99-7844 Filed 3-31-99; 8:45 am]
BILLING CODE 7550-01-P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-271]

Vermont Yankee Nuclear Power Corporation; Correction Notice

On February 25, 1999, the NRC published (64 FR 9360) "issuance of Director's Decision Under 10 CFR 2.206." The text of the actual Director's Decision should have followed the notice but did not. The text of "Director's Decision Pursuant to 10 CFR 2.206" (DD-99-04) follows this notice.

Dated at Rockville, Maryland this 25th day of March 1999.

For the Nuclear Regulatory Commission.
Elinor G. Adensam,
Director, Project Directorate 1-2, Division of Licensing Project Management Office of Nuclear Reactor Regulation.

Office of Nuclear Reactor Regulation, Samuel J. Collins, Director

In the Matter of Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station)

Docket No. 50-271

License No. DPR-28

(10 CFR 2.206)

Director's Decision Pursuant to 10 CFR 2.206

I. Introduction

By a Petition submitted pursuant to 10 CFR 2.206 on April 9, 1998, Michael J. Daley, on behalf of the New England Coalition on Nuclear Pollution, Inc., (Petitioner), requested that the U.S. Nuclear Regulatory Commission (NRC) take immediate action with regard to the Vermont Yankee Nuclear Power Station (VYNPS) operated by the Vermont Yankee Nuclear Power Corporation (licensee or Vermont Yankee).

The Petitioner requested that the NRC issue an order requiring that the licensee's administrative limits, which were in effect at the time and precluded VYNPS from operating with a torus water temperature above 80 °F or with a service water injection temperature greater than 50 °F, shall remain in force until certain conditions are met. The conditions listed include a complete reconstitution of the licensing basis for the maximum torus water temperature, submittal to the NRC of a technical specifications (TSs) amendment request establishing the correct maximum torus water temperature, and completion of NRC's review of the amendment request.

On May 13, 1998, the Director of the Office of Nuclear Reactor Regulation informed the Petitioner that he was denying the request for immediate action at VYNPS, that the Petition was being evaluated under 10 CFR 2.206 of the Commission's regulations, and that action would be taken in a reasonable time.

The NRC staff's review of the Petition is now complete. For the reasons set forth below, the Petitioner's remaining requests have been approximately addressed. The conditions associated with the Petitioner's request have been completed, including establishment of the correct licensing basis for the maximum torus temperature, submittal of a TS amendment request establishing the correct maximum torus water temperature limit, and completion of the NRC's review of the amendment request.

April 7, 1999

**REVISED
SCHEDULE AND OUTLINE FOR DISCUSSION
461st ACRS MEETING
APRIL 7-10, 1999**

**WEDNESDAY, APRIL 7, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH,
ROCKVILLE, MARYLAND**

- 1) 1:00 - 1:15 P.M. Opening Remarks by the ACRS Chairman (Open)
 1.1) Opening statement (DAP/JTL/RPS)
 1.2) Items of current interest (DAP/NFD/RPS)
 1.3) Priorities for preparation of ACRS reports (DAP/JTL/RPS)
- 2) 1:¹⁰15 - 2:²⁰45 P.M. Draft Commission Paper on Proposed Improvements to the Generic
Communications Process (Open) (MHF/MTM/DTD)
 2.1) Remarks by the Cognizant ACRS Member
 2.2) Briefing by and discussions with representatives of the NRC
staff regarding the draft Commission Paper on proposed
improvements to the Generic Communications Process.
- Representatives of the nuclear industry will provide their views, as
appropriate.
- 2:²⁰45 - 3:00 P.M. *****BREAK*****
- 3) 3:00 - 3:^{5:15}30 P.M. Steam Generator Tube and Reactor Pressure Vessel Integrity Issues
(Open) (RLS/NFD)
 3.1) Remarks by the Cognizant ACRS Member
 3.2) Briefing by and discussions with representatives of the NRC staff
regarding the status of ongoing regulatory activities associated
with steam generator tube integrity; staff's draft safety evaluation
of Boiling Water Reactor Vessel and Internals Project-14
(BWRVIP-14), "Evaluation of Crack Growth in BWR Stainless
Steel Reactor Pressure Vessel Internals;" suggested changes to
10 CFR 50.61, pressurized thermal shock rule; and related
matters.
- Representatives of the nuclear industry will provide their views, as
appropriate.
- 5:15-5:18
~~4:30 - 4:45 P.M.~~ Copy of the Bylaws passed out to members
*****BREAK*****
- 4) 4:^{5:18}45 - 7:15 P.M. Preparation of ACRS Report and the ACRS Bylaws (Open)
Discussion of:
 4.1) Proposed ACRS report on the NRC Safety Research Program
(REU/MME)
 4.2) Proposed revisions to the ACRS Bylaws (DAP/JTL/SD)

THURSDAY, APRIL 8, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH,
ROCKVILLE, MARYLAND

- 5) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/RPS)
- 6) 8:35 - 10:00 A.M. Insights Gained from the Risk-Informed Pilot Applications (Open) (WJS/PAB)
- 6.1) Remarks by the Cognizant ACRS Member
- 6.2) Briefing by and discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) regarding the insights gained from the risk-informed pilot applications, including those from the pilots for inservice inspection, extension of allowed outage times, and online maintenance.
- ^{15 30}
10:00 - 10:45 A.M. *****BREAK*****
- 7) ^{30-12:05 pm}
10:45 - 11:45 A.M. Proposed Final Revision to 10 CFR 50.65(a) of the Maintenance Rule and an Associated Draft Regulatory Guide (Open) (JJB/AS)
- 7.1) Remarks by the Cognizant ACRS Member
- 7.2) Briefing by and discussions with representatives of the NRC staff and NEI regarding the proposed final revision to 10 CFR 50.65(a) of the Maintenance Rule that would require licensees to perform safety assessments prior to performing maintenance activities, and an associated draft Regulatory Guide.
- ^{12:05-12:15}
11:45 - 12:45 P.M. *Comments from Commissioner Diaz*
- ^{12:15-1:30}
12:15 - 1:30 *****LUNCH*****
- 8) ^{12:45-2:15}
1:30 - 3:15 Proposed Approach for Revising the Commission's Safety Goal Policy Statement (Open) (GATSK/MTM)
- 8.1) Remarks by the Subcommittee Chairman
- 8.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed approach for revising the Commission's Safety Goal Policy Statement.
- Representatives of the nuclear industry will provide their views, as appropriate.
- ^{3:15-3:30}
2:15 - 2:30 P.M. *****BREAK*****
- ^{3:30-5:40}
9) ~~2:30 - 6:15 P.M.~~
~~(4:00 - 4:15 P.M. BREAK)~~ Preparation of ACRS Reports (Open)
- Discussion of proposed ACRS reports on:
- 9.1) Proposed Improvements to the Generic Communications Process (MHF/MTM/DTD)
- 9.2) Steam Generator Tube and Reactor Pressure Vessel Integrity Issues (RLS/NFD)
- 9.3) Insights Gained from Risk-Informed Pilot Applications (WJS/PAB)
- 9.4) Proposed Final Revision to Maintenance Rule and an Associated Draft Regulatory Guide (JJB/AS)

- 9.5) Proposed Approach for Revising the Commission's Safety Goal Policy Statement (GATSK/MTM)
- 9.6) Proposed Amendment to 10 CFR 50.55a, "Codes and standards" (WJS/NFD)
- 9.7) Reevaluation of GSI Process (DWM/AS)

FRIDAY, APRIL 9, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

10) ~~8:30~~ ^{10:44 - 10:45} 8:35 A.M.

Opening Remarks by the ACRS Chairman (Open) (DAP/RPS)

11) 8:35 - ~~10:00~~ ^{9:06} A.M.

Preparation of ACRS Reports (Open)

Discussion of proposed ACRS reports on:

- 11.1) Proposed ACRS report on the NRC Safety Research Program (REU/MME)
- 11.2) Proposed Improvements to the Generic Communications Process (MHF/MTM/DTD)
- 11.3) Steam Generator Tube and Reactor Pressure Vessel Integrity Issues (RLS/NFD)
- 11.4) Insights Gained from Risk-Informed Pilot Applications (WJS/PAB)
- 11.5) Proposed Final Revision to Maintenance Rule and an Associated Draft Regulatory Guide (JJB/AS)
- 11.6) Proposed Approach for Revising the Commission's Safety Goal Policy Statement (GATSK/MTM)
- 11.7) Proposed Amendment to 10 CFR 50.55a, "Codes and standards" (WJS/NFD)
- 11.8) Reevaluation of GSI Process (DWM/AS)

12) ^{05 40} 10:00 - 10:30 A.M.

Subcommittee Report (Open) (GBW/PAB)

Report by the Chairman of the ACRS Subcommittee on Thermal-Hydraulic Phenomena regarding matters discussed at the March 23, 1999 meeting.

^{9:40 - 10:00}
10:30 - 10:45 A.M.

BREAK

13) ^{12:10 PM} 10:45 - 11:45 A.M.

Impact of the Use of High Burnup or Mixed Oxide Fuel on the Revised Source Term (Open) (DAP/MME)

Discussion of proposed ACRS response to a Commission request, included in the March 5, 1999 Staff Requirements Memorandum (SRM), that the ACRS consider the impact of the use of high burnup or mixed oxide fuel on the revised source term.

Representatives of the NRC staff will participate, as appropriate.

^{12:10 1:15}
11:45 - 1:00 P.M.

LUNCH

1:25 - 2:55
14) 1:00 - 2:00 P.M.

Relationship and Balance Between PRA Results and Defense-In-Depth (Open) (TSK/MTM)

Discussion of proposed ACRS response to a Commission request, included in the March 5, 1999 SRM, that the ACRS consider the appropriate relationship and balance between PRA results and defense-in-depth in the context of risk-informed regulation.

Representatives of the NRC staff will participate, as appropriate.

9:06 - 9:25
15) 2:00 - 2:15 P.M.

Reconciliation of ACRS Comments and Recommendations (Open) (DAP, et al./SD, et al.)

Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

3:30 4:05
16) 2:15 - 3:00 P.M.

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

Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, and organizational and personnel matters relating to the ACRS.

[Note: A portion of this session may be closed to discuss organizational and personnel matters that relate solely to the internal personnel rules and practices of this Advisory Committee, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

3:15 - 3:30
3:00 - 3:15 P.M.

BREAK

2:55 - 3:15
17) 3:15 - 4:00 P.M.

Future ACRS Activities (Open) (DAP/JTL/RPS)

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

4:05 - 4:50
18) 4:00 - 7:00 P.M.

Preparation of ACRS Reports (Open)

Continue discussion of proposed ACRS reports on:

4:50 - 5:05 BREAK

- 18.1) NRC Safety Research Program (REU/MME)
- 18.2) Proposed Approach for Revising the Commission's Safety Goal Policy Statement (GA/TSK/MTM)
- 18.3) Proposed Improvements to the Generic Communications Process (MHF/MTM/DTD)
- 18.4) Steam Generator Tube and Reactor Pressure Vessel Integrity Issues (RLS/NFD)
- 18.5) Insights Gained from Risk-Informed Pilot Applications (WJS/PAB)
- 18.6) Proposed Final Revision to Maintenance Rule and an Associated Draft Regulatory Guide (JJB/AS)
- 18.7) Impact of High Burnup or Mixed Oxide Fuel on the Revised Source Term (DAP/MME)

5:05 - 7:00 PM



- 18.8) Relationship and Balance Between PRA Results and Defense-in-Depth (TSK/MTM)
- 18.9) Proposed Amendment to 10 CFR 50.55a, "Codes and standards" (WJS/NFD)
- 18.10) Reevaluation of GSI Process (DWM/AS)

SATURDAY, APRIL 10, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- | | |
|--|--|
| <p>19) 8:30 - 2:00 P.M.
 (12:00-1:00 P.M. LUNCH)
 10:20-10:33
 20) 2:00-2:30 P.M.
 10:33 - 1:00 PM
 ↓</p> | <p><u>Preparation of ACRS Reports (Open)</u>
 Continue discussion of proposed ACRS reports listed under Item 18.</p> <p>BREAK</p> <p><u>Miscellaneous (Open) (DAP/JTL/RPS)</u>
 Discussion of matters related to the conduct of Committee activities and matters and specific issues that were not completed during previous meetings, as time and availability of information permit.</p> |
|--|--|

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

461ST ACRS MEETING APRIL 7-10, 1999

NRC STAFF (April 7, 1999)

J. Mitchell, OEDO
E. Benner, NRR
L. Campbell, NRR
T. Scarbrough, NRR
G. Imbro, NRR
D. Terao, NRR
M. Reinhart, NRR
S. Long, NRR
E. Murphy, NRR
T. Sullivan, NRR
R. Hermann, NRR
S. Malik, RES
E. Hackett, RES
F. Cherny, RES
M. Mayfield, RES
W. Norris, RES

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

S. Puchalla, DOE
N. Chapman, Bechtel
D. Chung, NUS
A. Marion, NEI
C. Gallaway, NEI
B. Hardies, BGE
P. Gunter, NIRS
D. Morrison, Self
K. Cozee, NEI

NRC STAFF (April 8, 1999)

J. Sharkey, OCM/EM
J. Mitchell, OEDO
N. Gilles, NRR
M. Cheok, NRR
E. Throm, NRR
B. Dennig, NRR
M. Snodderly, NRR
R. Barrett, NRR
M. Wohl, NRR
A. El-Bassioni, NRR
S. Wong, NRR
S. Dinsmore, NRR
D. Fischer, NRR
G. Bagchi, NRR
W. Scott, NRR
R. Correia, NRR
T. Quay, NRR
S. Ali, NRR
B. Boger, NRR
M. Rubin, NRR
M. Reinhart, NRR
J. Wilcox, NRR
S. Black, NRR
S. Coplan, NMSS
J. Murphy, RES
G. Mizuno, OGC
R. Tripathi, CRGR

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

T. Sutter, Bechtel
R. Huston, Licensing Support Services
B. Bradley, NRR
J. Richardson, Longenberger, Associates
D. Chung, NUS
M. Knapik, McGraw-Hill

NRC STAFF (April 9, 1999)

R. Caruso, NRR
R. Landry, NRR
U. Shoor, NRR
S. LaVie, NRR
M. Chatterton, NRR
J. Wilson, NRR
F. Eltawila, RES
J. Costello

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

E. Schmidt, Scientech



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

April 27, 1999

SCHEDULE AND OUTLINE FOR DISCUSSION
462nd ACRS MEETING
MAY 5-8, 1999

WEDNESDAY, MAY 5, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 1) 1:00 - 1:15 P.M. Opening Remarks by the ACRS Chairman (Open)
 1.1) Opening statement (DAP/JTL/RPS)
 1.2) Items of current interest (DAP/NFD/RPS)
 1.3) Priorities for preparation of ACRS reports (DAP/JTL/RPS)
- 2) 1:15 - 1:45 P.M. Electric Power Research Institute (EPRI) Application of Risk-Informed Methods to Inservice Inspection (Open) (WJS/GA/MTM)
 2.1) Remarks by the Cognizant ACRS Member
 2.2) Briefing by and discussions with representatives of EPRI and the NRC staff on the proposed application of risk-informed methods to inservice inspection of piping (ISI).
- 3) 1:45 - 2:45 P.M. Proposed Final Revision to 10 CFR 50.59 (Changes, Tests and Experiments) (Open) (JJB/MTM)
 3.1) Remarks by the Cognizant ACRS Member
 3.2) Briefing by and discussions with representatives of the NRC staff regarding the staff's proposed final revision to 10 CFR 50.59.
- Representatives of the nuclear industry will provide their views, as appropriate.
- 2:45 - 3:00 P.M. *****BREAK*****
- 4) 3:00 - 4:30 P.M. Safety Evaluation for the Calvert Cliffs Nuclear Power Plant (CCNPP) License Renewal Application (Open) (MHF/NFD)
 4.1) Remarks by the Cognizant ACRS Member
 4.2) Briefing by and discussions with representatives of the NRC staff and of the Calvert Cliffs licensee on the CCNPP license renewal application.
- 5) 4:30 - 7:00 P.M. Preparation of ACRS Reports (Open)
 Discussion of proposed ACRS reports:
 5.1) Proposed ACRS report on the NRC Safety Research Program (REU/MME)
 5.2) EPRI Proposed Application of Risk-Informed ISI of Piping (WJS/GA/MTM)
 5.3) Proposed final revisions to 10 CFR 50.59 (JJB/MTM)

- 5.4) Impact of High Burnup or Mixed Oxide Fuel on the Revised Source Term (DAP/MME)
- 5.5) Relationship and Balance Between PRA Results and Defense-in-Depth (TSK/PAB/JNS)

THURSDAY, MAY 6, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 6) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/RPS)
- 7) 8:35 - 9:15 A.M. Proposed Resolution of Generic Safety Issue (GSI) 158, "Performance of Safety Related Power-Operated Valves Under Design Bases Conditions" (Open) (MVB/AS)
 - 7.1) Remarks by the Cognizant ACRS Member
 - 7.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed resolution of GSI 158.
- 8) 9:15 - 10:00 A.M. Proposed Resolution of Generic Safety Issue (GSI) 165, "Spring-Actuated Safety Relief Valve Reliability" (Open) (MVB/AS)
 - 8.1) Remarks by the Cognizant ACRS Member
 - 8.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed resolution of GSI 165.
- 10:00 - 10:15 A.M. *****BREAK*****
- 9) 10:15 - 11:45 A.M. Fire Protection Functional Inspection Program (Open) (DAP/AS)
 - 9.1) Remarks by the Cognizant ACRS Members
 - 9.2) Briefing by and discussions with representatives of the NRC staff regarding the staff work on the fire protection functional inspection program.

Representatives of the nuclear industry will provide their views, as appropriate.
- 11:45 - 12:45 P.M. *****LUNCH*****
- 10) 12:45 - 2:15 P.M. Westinghouse Owners Group (WOG) Proposal for Modification of Core Damage Assessment Guidelines (CDAG) and Post-Accident Sampling System (PASS) Requirements (Open/Closed) (TSK/PAB)
 - 10.1) Remarks by the Cognizant ACRS Member
 - 10.2) Briefing by and discussions with representatives of the NRC staff and WOG to discuss the WOG proposal for modification of CDAG and PASS requirements.

[Note: A portion of this session may be closed to discuss Westinghouse Electric Company proprietary information.]

11) 2:15 - 6:30 P.M.
(2:45-3:00 P.M. BREAK)

Preparation of ACRS Reports (Open)

Discussion of proposed ACRS reports:

- 11.1) ACRS Report on the NRC Safety Research Program(REU/MME)
- 11.2) Proposed Final Revision to 10 CFR 50.59 (JJB/MTM)
- 11.3) Interim Report on CCNPP License Renewal Application (MHF/NFD)
- 11.4) Proposed Resolutions of GSI 158 and GSI 165 (DWM/AS)
- 11.5) EPRI Proposed Application of Risk-Informed ISI of Piping (WJS/GA/MTM)
- 11.6) WOG Proposal for Modification of CDAG and PASS Requirements (TSK/PAB)
- 11.7) Impact of High Burnup or Mixed Oxide Fuel on the Revised Source Term (DAP/MME)
- 11.8) Relationship and Balance Between PRA Results and Defense-in-Depth (TSK/PAB/JNS)
- 11.9) Fire Protection Function Inspection Program (DAP/AS)

FRIDAY, MAY 7, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

12) 8:30 - 8:35 A.M.

Opening Remarks by the ACRS Chairman (Open) (DAP/RPS)

13) 8:35 - 9:30 A.M.

Tutorial on Instrument Setpoints (Open) (DWM/AS)

ACRS member, Dr. D. Miller, will provide a tutorial for the Committee on the issues and concerns associated with instrument setpoints for safety systems at nuclear power plants.

14) 9:30 - 9:45 A.M.

Reconciliation of ACRS Comments and Recommendations (Open) (DAP, et al./SD, et al.)

Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

15) 9:45 - 10:15 P.M.

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

Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, and organizational and personnel matters relating to the ACRS.

[Note: A portion of this session may be closed to discuss organizational and personnel matters that relate solely to the internal personnel rules and practices of this Advisory Committee, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

10:15 - 10:30 A.M.

BREAK

- 16) 10:30 - 11:00 A.M. Future ACRS Activities (Open) (DAP/JTL/RPS)
Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future meetings.
- 17) 11:00 - 7:30 P.M.
(12:00-1:00 P.M.-LUNCH) Preparation of ACRS Reports (Open)
Continue discussion of proposed ACRS reports:
- 17.1) ACRS Report on the NRC Safety Research Program (REU/MME)
 - 17.2) Proposed Final Revision to 10 CFR 50.59 (JJB/MTM)
 - 17.3) Interim Report on CCNPP License Renewal Application (MHF/NFD)
 - 17.4) Proposed Resolutions of GSI 158 and GSI 165 (DWM/AS)
 - 17.5) EPRI Proposed Application of Risk-Informed ISI (WJS/GA/MTM)
 - 17.6) WOG Proposal for Modification of CDAG and PASS Requirements (TSK/PAB)
 - 17.7) Impact of High Burnup or Mixed Oxide Fuel on the Revised Source Term (DAP/MME)
 - 17.8) Relationship and Balance Between PRA Results and Defense-in-Depth (TSK/PAB/JNS)
 - 17.9) Fire Protection Function Inspection Program (DAP/AS)

SATURDAY, MAY 8, 1999, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 18) 8:30 - 2:00 P.M.
(12:00-1:00 P.M. LUNCH) Preparation of ACRS Reports (Open)
Continue discussion of proposed ACRS reports listed under Item 17.
- 19) 2:00 - 2:30 P.M. Miscellaneous (Open) (DAP/JTL/RPS)
Discussion of matters related to the conduct of Committee activities and matters and specific issues that were not completed during previous meetings, as time and availability of information permit.

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 V
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE

[Note: Some documents listed below may have been provided or prepared for Committee use only. These documents must be reviewed prior to release to the public.]

MEETING HANDOUTS

AGENDA
ITEM NO.

DOCUMENTS

- 1 Opening Remarks by the ACRS Chairman
 1. Items of Interest, dated April 7-10, 1999

- 2 Draft Commission Paper on Proposed Improvements to the Generic Communication Process
 2. Generic Communications presentation by NRR [Viewgraphs]

- 3 Steam Generator Tube and Reactor Pressure Vessel Integrity Issues
 3. Supplement to Proposed Amendment to 10 CFR 50.55a presentation by T. Scarbrough, NRR [Viewgraphs]
 4. Steam Generator Tube Integrity presentation by E. Murphy, NRR, [Viewgraphs]
 5. When and Why to Consider Risk Associated with Requests for Relaxation of Steam Generator Tube Integrity Requirements presentation by S. Long, NRR [Viewgraphs]

- 4 Proposed Final Revisions to the ACRS Bylaws [Handout #6]

- 5 Insights Gained from the Risk-Informed Pilot Application
 7. Lessons Learned from the Use of Risk-Informed Methods in the Licensing Process presentation by R. Barrett, M. Rubin, NRR [Viewgraphs]

- 6 Proposed Final Revision to 10 CFR 50.65(a) of the Maintenance Rule and an Associated Draft Regulatory Guide
 8. Revision to Paragraph (a)(3) of the Maintenance Rule 10 CFR 50.65 presentation by R. Correia, W. Scott, S. Wong, NRR [Viewgraphs]
 9. Risk-Informed ISI presentation by NEI [Viewgraphs]
 10. Assessment Scope presentation by NEI [Viewgraph]

- 7 Proposed Approach for Revising the Commission's Safety Goal Policy Statement
 11. Update of Safety Goal Policy presentation by T. King, J. Murphy, RES [Viewgraphs]

- 8 Reconciliation of ACRS Comments and Recommendations
12. Reconciliation of ACRS Comments and Recommendations [Handout #15.1]

- 9 Subcommittee Report
13. Working Copy, Minutes of Thermal-Hydraulic Phenomena Subcommittee Meeting, March 23, 1999 [Handout #12-1]

- 10 Impact of the Use of High Burnup or Mixed Oxide Fuel on the Revised Source Term
14. High Burnup Fuel and Mox presentation by ACRS [Viewgraphs]

- 11 Relationship and Balance Between PRA Results and Defense-in-Depth
15. Draft Letter to The Honorable Shirley Ann Jackson w/attachments [Handout]

- 12 Future ACRS Activities
16. Future ACRS Activities - 462nd ACRS Meeting, April 9, 1999 [Handout #17-1]

- 13 Report of the Planning and Procedures Subcommittee
17. Final Draft Minutes of Planning and Procedures Subcommittee Meeting - April 6, 1999 [Handout #16-1]

MEETING NOTEBOOK CONTENTS

TAB

DOCUMENTS

- 2 Draft Commission Paper on Proposed Improvements to the Generic Communication Process
 1. Table of Contents
 2. Proposed Schedule
 3. Project Status Report dated April 7, 1999
 4. Energy and Water Development Appropriate Bill 1999 Report 105-206
 5. Statement Submitted by the NRC, dated July 30, 1998 to the Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety Committee on Environment and Public Works United States Senate, Concerning USNRC Programs and Nuclear Safety Regulatory Issues
 6. Memorandum dated March 3, 1999, from Robert L. Dennig, Acting Chief, Events Assessment and Generic Communications Branch, Division of Regulatory Improvements Programs, Office of Nuclear Reactor Regulation

- 3 Steam Generator Tube and Reactor Pressure Vessel Integrity Issues
 7. Table of Contents
 8. Proposed Agenda
 9. Status Report dated April 7, 1999
 10. ACRS Report dated June 20, 1997, from R. L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Proposed Regulatory Approach Associated with Steam Generator Integrity
 11. ACRS Report dated September 15, 1997, from R. L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Proposed Generic Letter and Draft Regulatory Guide DG-1074 Concerning Steam Generator Tube Integrity
 12. U.S. Nuclear Regulatory Commission, SECY-98-248, "Proposed Generic Letter 98-XX, Steam Generator Tube Integrity," issued October 28, 1998
 13. Letter dated December 16, 1997, from Ralph Beedle, Senior Vice President and Chief Financial Officer, Nuclear Energy Institute, Subject: NEI 97-06, "Steam Generator Guidelines"
 14. Development of Technical Basis for Revision of PTS Rule

- 6 Insights Gained from the Risk-Informed Pilot Applications
 15. Table of Contents
 16. Proposed Schedule
 17. Project Status Report dated April 8, 1999

18. Memorandum to T. Kress from P. Boehnert, NRC Staff Meeting with Southern California Edison - Exemption Request from Hydrogen Monitoring Requirements, dated March 19, 1999
- 7 Proposed Final Revision to 10 CFR 50.65(a) of the Maintenance Rule and an Associated Draft Regulatory Guide
19. Table of Contents
 20. Proposed Schedule
 21. Status Report dated April 8, 1999
 22. Memorandum to James Lieberman et al, from Bruce A. Boger, Director, Division of Inspection Program Management, Subject: Final Revision to 10 CFR 50.65 to require licensees to perform pre-maintenance assessments
 23. Letter to the Honorable Shirley Ann Jackson, Chairman, U.S. Nuclear Regulatory Commission, from Ralph E. Beedle, NEI, Subject: Industry Comments on Proposed Rulemaking to 10 CFR 50.65, Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, dated March 17, 1999
 24. Letter to Commissioners from James R. Curtis Law Offices of Winston and Strawn, Subject: Proposed Revision to Maintenance Rule, dated March 23, 1999
- 8 Proposed Approach for Revising the Commission's Safety Goal Policy Statement
25. Table of Contents
 26. Proposed Schedule
 27. Status Report dated April 8, 1999
 28. Staff Requirements Memorandum dated June 30, 1998, Subject: SECY-98-101, Modifications to the Safety Goal Policy Statement
 29. Report dated May 11, 1998, from R. L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Subject: Elevation of CDF to a Fundamental Safety Goal and Possible Revision of the Commission's Safety Goal Policy Statement
 30. Meeting summary dated March 31, 1999, from J. Sorensen, ACRS Fellow, to R. Savio, Deputy Director, ACRS/ACNW, Subject: PRA Steering Committee 3/26/99
 31. Safety Goal Policy Statement dated August 4, 1986
- 12 Thermal-Hydraulic Phenomena Subcommittee Review of EPRI RETRAN-3D Transient Analysis Code
32. Table of Contents
 33. Project Status Report dated April 9, 1999
 34. NRR list of Request for Additional Information on RETRAN-3D Code
 35. Excerpt from Certified Copy, Minutes of ACRS T/H Phenomena

Subcommittee Meeting, December 16-17, 1998

- 13 Impact of the Use of High Burnup or Mixed Oxide Fuel on the Revised Source Term
 36. Table of Contents
 37. Proposed Schedule
 38. Status Report dated April 9, 1999
 39. Letter from P. Levanthal, NCI, to W. Travers, EDO, dated February 5, 1999
 40. Executive Summary by Dr. E. Lyman, NCI, dated January 21, 1999
 41. Staff Requirements Memorandum (SRM), dated March 5, 1999

- 14 Relationship and Balance Between PRA Results and Defense-In-Depth
 42. Table of Contents
 43. Proposed Schedule
 44. Status Report
 45. Staff Requirements Memorandum dated March 5, 1999, Subject: Commission meeting with the ACRS
 46. Report dated June 17, 1999, from R. L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Proposed Staff Position Regarding Inclusion of a Containment Spray System in the AP600 Design
 47. Draft paper dated February 7, 1999, by J. Sorensen, ACRS, Fellow, G. Apostolakis, T. Kress, and D. Powers, ACRS Members, Subject: "On the Role of Defense In Depth in Risk-Informed Regulation," to be presented at PSA '99, Washington, DC