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AUGUST 29–SEPTEMBER 1, 2000

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## REPORTS, LETTERS, AND MEMORANDA

### REPORTS

- Assessment of the Quality of Probabilistic Risk Assessments (Report to Richard A. Meserve, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated September 7, 2000)
- Cases and Significance of Design Basis Issues at U.S. Nuclear Power Plants (Report to Richard A. Meserve, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated September 8, 2000)
- Proposed Risk-Informed Revisions to 10 CFR 50.44, “Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors” (Report to Richard A. Meserve, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated September 13, 2000)
- Pre-Application Review of the AP1000 Standard Plant Design—Phase 1 (Report to Richard A. Meserve, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated September 14, 2000)

### LETTERS

- Proposed High-Level Guidelines for Performance-Based Activities (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated September 8, 2000)
- Proposed Final Regulatory Guide DG-1093, “Guidance and Examples for Identifying 10 CFR 50.2 Design Bases” (Letter to William D. Travers, Executive Director for Operations, NRC, from Dana A. Powers, Chairman, ACRS, dated September 12, 2000)

### MEMORANDA

- Final Regulatory Guide 1.18x on 10 CFR 50.59, “Changes, Tests, and Experiments” (Memorandum to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, dated September 5, 2000)

- Draft Regulatory Guide DG-1075, “Emergency Planning and Preparedness for Nuclear Power Reactors” (Proposed Revision 4 to Regulatory Guide 1.101) (Memorandum to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, dated September 7, 2000)

## APPENDICES

- 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

## **CERTIFIED**

MINUTES OF THE 475TH MEETING OF THE  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
AUGUST 29–SEPTEMBER 1, 2000  
ROCKVILLE, MARYLAND

The 475th meeting of the Advisory Committee on Reactor Safeguards (ACRS) was held in Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on August 29–September 1, 2000. Notice of this meeting was published in the *Federal Register* on August 18, 2000 (65 FR50576) (Appendix I). The purpose of this meeting was to discuss and take appropriate action on the items listed in the meeting schedule and outline (Appendix II). The meeting was open to public attendance. There were no written statements or requests for time to make oral statements from members of the public.

A transcript of selected portions of the meeting was kept and is available in the NRC Public Document Room at the One White Flint North Building, Mail Stop 1F-15, Rockville, MD, 20852-2738. [Copies of the transcript are available for purchase from Ann Riley & Associates, Ltd., 1025 Connecticut Avenue, NW, Suite 1014, Washington, DC 20036, and on the ACRS/ACNW Web page at ([www.NRC.gov/ACRS/ACNW](http://www.NRC.gov/ACRS/ACNW)).]

### ATTENDEES

ACRS Members: Dr. Dana A. Powers (Chairman), Dr. George Apostolakis (Vice Chairman), Dr. Mario V. Bonaca, Dr. Thomas S. Kress, Mr. Graham M. Leitch, Dr. William J. Shack, Dr. Robert L. Seale, Mr. John D. Sieber, Dr. Robert E. Uhrig, and Dr. Graham B. 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 8:30 a.m. and reviewed the schedule for the meeting. He summarized the agenda topics for this meeting and discussed the administrative items for consideration by the full Committee. The Chairman introduced Mr. Graham M. Leitch, a new ACRS member.

II. Proposed Risk-Informed Revisions to 10 CFR Part 50 (Open)

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

Dr. William Shack, the cognizant ACRS member for this issue, introduced the topic. He stated that the purpose of the meeting was to discuss proposed risk-informed revisions to 10 CFR 50.44, "Standards for combustible gas control in light-water cooled power reactors," and related matters. He noted that the ACRS Subcommittee on Reliability and Probabilistic Risk Assessment met on June 29 and July 11, 2000.

NRC Staff Presentations

Mr. Timothy Reed, NRR, gave a brief presentation on proposed risk-informed revisions to the special treatment requirements of 10 CFR Part 50 (Option 2). Ms. Cynthia Carpenter and Mr. Joe Williams, NRR, provided supporting discussion. The staff summarized the proposed reconciliation of public comments on the Advance Notice of Proposed Rulemaking (ANPR) for 10 CFR 50.69 and Appendix T. They also discussed selective implementation, the need for prior NRC review, PRA quality, and the need for changes to other regulations (e.g., 10 CFR Part 21 for reporting of defects and noncompliance). Significant points made during the presentation include the following:

- ! Public comments were in general agreement with the approach proposed in the ANPR, particularly with respect to the staff's plans for a phased approach. Some public comments suggested that the approach be optional and not mandatory, allow for performance-based methods to meet the requirements, and allow for selective implementation. Some public comments also suggested that the Backfit Rule be applied if any new requirements are proposed.
- ! Other public comments were that Appendix T is too detailed, prescriptive, and burdensome that the NRC should not endorse consensus standards as the "only" method for meeting PRA quality expectations, and that the NEI peer review certification process described in NEI 00-02 should also be considered as a means of meeting NRC criteria for risk-informed decision making.
- ! In general, the industry and staff are in close agreement on the categorization of structures, systems, and components (SSCs). However,

the staff and industry differ in their views on the regulatory treatment of SSCs, particularly with regard to RSIC-2 (safety-related, not risk significant).

- ! The staff's review of the South Texas Project exemption request is continuing. The staff expects to complete its draft safety evaluation report in early November 2000.

Mr. Thomas King and Ms. Mary Drouin, RES, briefed the Committee on proposed risk-informed revisions to the technical requirements of 10 CFR 50.44 and related matters (Option 3). Significant points made during the presentation include the following:

- ! Fuel damage associated with a core melt accident can potentially produce combustible gases (i.e., hydrogen and carbon monoxide) from reactions of the fuel cladding and core with concrete.
- ! Hydrogen is not a significant challenge to containment within the first 24 hours of core damage. Unmitigated, long-term hydrogen buildup can reach into explosive concentrations. Core damage, combined with a breach of containment, could result in an offsite release and have an adverse impact on public safety and the environment.
- ! Based on its technical evaluation of the hazards and in response to the petition for rulemaking submitted by Performance Technology, Inc. the staff proposes to modify the following regulatory provisions in 10 CFR 50.44 as follows:
  - S enhance the analytical requirements associated with the hydrogen source term,
  - S eliminate the requirement to measure hydrogen concentration,
  - S the requirement to ensure containment atmosphere mixing,
  - S eliminate the requirement for post-accident hydrogen recombiners,
  - S enhance the requirements for hydrogen igniters in BWR Mark III and PWR ice condenser containments, and
  - S allow for risk-informed and performance-based methods.
- ! The staff will retain the following requirements to:
  - S for high-point reactor vessel vents, and
  - S inerting BWR Mark I and II containments.

### Industry Presentation

Mr. Adrian Heymer, NEI, gave a brief presentation to the Committee. Significant points made during the presentation include the following:

- S NEI is concerned about the prescriptiveness of the proposed rule with regard to 10 CFR 50.69. NEI also stated that an industry guideline endorsed by the NRC or a regulatory guide is a more appropriate approach than the proposed Appendix T.
- S NEI supports voluntary, selective implementation. NEI is also concerned about the treatment of commercial-grade equipment and commercial practices. NEI stated that reasonable assurance can be demonstrated via the Maintenance Rule.
- S NEI does not support new regulatory requirements for SSCs that are risk-significant but not safety-related (Category 2). NEI is concerned about the level of detail and analysis that may be required for safety-related but not risk-significant SSCs.
- S NEI views risk-informing 10 CFR 50.46 for emergency core cooling systems as the next major focus area for revising 10 CFR Part 50. NEI is working with the nuclear steam supply system (NSSS) owners groups to develop a common approach. NEI stated that substantial regulatory burden reduction could be realized with the redefinition of the large-break loss-of-coolant accident (LOCA).

### Concerned Citizen Presentation

Mr. Bob Christie of Performance Technology, Inc., gave a presentation on his petition for rulemaking on 10 CFR 50.44 concerning combustible gas control systems. Significant points made during the presentation include the following:

- S Performance Technology's petition for rulemaking that came from the submission by could have been approved under the current regulatory framework (i.e., deterministically). The use of risk information only confirms that 10 CFR 50.44 is an unnecessary regulatory burden and has little or no safety benefit.

- S The staff should take action on the proposed rulemaking 10 CFR 50.44 independently of the Option 3 initiative. The NEI Task Zero initiative demonstrated that removal of combustible gas control systems is a risk-positive change.
- S New regulatory requirements and safety enhancements should be required to pass the Backfit Rule.

With respect to Option 2 of the ANPR, Dr. Apostolakis asked what the staff expected to review in terms of categorization and special treatment. The staff stated that it would be desirable for the revised rule and associated guidance to enable licensees to make certain changes without NRC review of both the categorization and the special treatment. Dr. Apostolakis asked whether the staff would review the PRA and/or risk analysis supporting the proposed change. He also suggested that it would be worthwhile to know how the expert panel made decisions. The staff stated that verification of allowed changes would likely be considered in the post-implementation phase but acknowledged that there may be some difficulty with the PRA.

Dr. Seale asked what success criterion would be used for risk-informed changes under Option 2. Dr. Apostolakis stated that the impact on core damage frequency (CDF) and large early release frequency (LERF) might not be known because the system might be insensitive to the change. Dr. Powers suggested that CDF and LERF may not be the right measures. Dr. Wallis suggested that the criterion might be that sufficient safety margins are maintained. The staff stated that it hoped to develop a better understanding of how the expert panels treat risk information and safety margin during the pilot applications. Dr. Apostolakis stated that the approach relies heavily on importance measures and noted that the Committee previously expressed concern over the need for training expert panels on the proper use of importance measures.

Dr. Apostolakis stated that there is some merit in the industry's suggestion that the proposed Appendix T might be more effective as a regulatory guide. He noted that a regulatory guide may provide more flexibility in the use of alternative risk analysis techniques, e.g., the Top Event Prevention (TEP) methodology used by Consumers Power Company. The staff agreed that there might be some merit to using a regulatory guide, which might endorse some form of industry guidance, and noted that a decision had not yet been made on the proposed use of Appendix T.

Dr. Powers asked about the types of accidents being considered in the 24-hour cutoff for 10 CFR 50.44. In particular, he asked about events in which the containment atmosphere would become stratified. The staff said that a station blackout event represents a substantial hazard for certain containment designs because of the loss of containment mixing and the need for emergency power to igniters.

### Conclusion

The Committee sent a report dated September 12, 2000, to Chairman Meserve on this matter. The Committee also decided to schedule a briefing during the October 5-7, 2000, ACRS meeting, to review NEI 00-02.

### III. Causes and Significance of Design Basis Issues at U.S. Nuclear Power Plants (Open)

[Mrs. Maggalean W. Weston was the Designated Federal Official for this portion of the meeting.]

Dr. Robert L. Seale, the cognizant member, introduced this topic. He mentioned the Committee's previous concern regarding the loss of independence as a result of a reorganization in which AEOD became a part of RES and NRR. Additionally, he emphasized the importance of the information being presented because of the movement toward risk-informed regulation and the opportunity for comparison.

### NRC Staff Presentations

Mr. Ronald Lloyd, RES, gave a presentation on the causes and significance of design basis issues (DBIs). He stated that the study report documents results of a systematic and comprehensive study of design basis issue trends and patterns. The study provides insights from reported design basis issues with respect to (1) their causes, significant patterns within both the power reactor industry and power reactor systems, frequency trends, safety consequences, and risk significance; (2) the lessons that may be useful in assessing regulatory effectiveness of NRC's evolving inspection and plant performance assessment processes and the definition of plant design basis; and, (3) regulatory burden implications related to NRC licensee event reporting requirements for design basis issues. The insights from this study are intended to assist NRC and the industry with ongoing efforts to make NRC's regulatory framework and oversight process more risk informed and performance based and to reduce unnecessary regulatory burden.

The information for the report was compiled from data gathered from 1985 through 1997. The report showed that (1) there were more than 3100 licensing event reports (LERs) with DBIs during the reporting period and more than 500 in 1997 which was the focus year, (2) the number of reported events increased during NRC initiatives, (3) only a small percentage of DBIs were classified as accident sequence precursor events. The most common causes of DBIs were original design error, procedure deficiency, and human error. Three safety-related systems accounted for a majority of the potentially risk significant DBIs, older plants generally reported more DBIs than newer plants, and from 1990 to 1997, the percent of LERs with DBIs with accident sequence precursor events steadily decreased while the number of DBIs increased. The Committee discussed the risk assessment tools for fire and again concluded that we do not have a good risk model.

#### Conclusion

A letter dated September 8, 2000, was sent to Chairman Meserve expressing satisfaction with the agency efforts to continue analyses of experiential data.

#### IV. Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis

[Mrs. Maggalean W. Weston was the Designated Federal Official for this portion of the meeting.]

Dr. Robert L. Seale, the cognizant member, introduced this topic. It was noted earlier that this and the previous topics were related in that they both dealt with design bases. The term "design basis" is used in several regulations in 10 CFR Part 50. It is also useful for evaluating degraded and nonconforming conditions.

#### NRC Staff Presentations

The presentation on the regulatory guide endorsing NEI 97-04, Appendix B, "Design Basis Program Guidelines," was made by Mr. Steward Magruder, NRR, and Mr. Russ Bell, NEI. Mr. Magruder stated that the purpose of this part of the meeting was to present the proposed final regulatory guide and obtain Committee approval for issuance. The regulatory guide endorses NEI 97-04 and the objective was to develop guidance that provides a clearer understanding of what constitutes design basis information as defined in 10 CFR 50.2.

The NEI guidance was developed as a result of system-specific engineering inspections that showed that some licensees were not maintaining design basis information as required by NRC regulations. In response to the problems identified during these inspections and other problems identified by the licensees, most nuclear power plant licensees initiated design basis reconstitution programs. These programs sought to identify and selectively regenerate missing documentation. During the documentation effort, it became clear that the definitions of what constituted design basis information differed from licensee to licensee. The lessons learned from events at Millstone and Maine Yankee showed that the definition of design basis should be clarified. A Senior Requirements Memorandum (SRM) dated August 7, 1998, requested that the guidance be developed.

The proposed final regulatory guide endorses the NEI guidance without exception because the NRC staff and NEI representatives were able to resolve differences that had previously existed.

The general guidance defines design basis functions as those performed by systems, structures, and components that are (1) required, or otherwise necessary, to comply with regulations, license conditions, orders, or technical specifications, or (2) credited in licensee safety analyses to meet NRC requirements.

The guidance defines design bases values as values or ranges of values of controlling parameters established as reference bounds for design to meet design basis functional requirements. These values may be (1) established by NRC requirement, (2) derived from or confirmed by safety analyses, or (3) chosen by the licensee from an applicable code, standard, or guidance document.

#### Conclusion

The Committee voted to support staff endorsement of the NEI guidance. Dana A. Powers sent a letter dated September 12, 2000, to the Executive Director of Operations (EDO) recommending issuance of DG-1093 and endorsing NEI 97-04, Appendix B.

#### V. AP1000 Standard Plant Design (Open)

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

The Committee heard a presentation by and held discussions with the staff regarding the results of the staff's preapplication (Phase 1) review of the Westinghouse Electric Company's proposed AP1000 standard plant design. Westinghouse plans to seek certification of a 1000 Mwe nuclear plant design similar to the certified AP600 design and seeks NRC feedback on the scope and cost to reviewing and certifying the AP1000 design.

The NRC and Westinghouse have agreed to a three-phase review approach noted below:

#### Phase I

- Identify the review assumptions and issues that need to be evaluated in Phase II.
- Identify the information that the NRC will need to evaluate these assumptions and issues.
- Estimate the schedule and resources needed to perform the Phase II review.

#### Phase II

- Determine the scope of the AP1000 design certification review.
- Estimate the schedule and resources needed to perform the Phase III review.
- Request Commission approval of Phase II evaluation.

#### Phase III

- Perform design certification review.

#### Preapplication Review Items Proposed by Westinghouse and the NRC Staff's Response to the Westinghouse Proposal

In a letter dated May 31, 2000, Westinghouse identified five fundamental assumptions, noted below, for evaluation by the staff during the Phase II preapplication review of the AP1000 design. In a letter dated July 27, 2000, the

NRC staff provided the results of its assessment of the Westinghouse proposal. Staff responses to the Westinghouse proposal are also included under each item.

- The AP1000 Design Certification Application will reference sections of the AP600 Design Control Document (DCD) that do not change for AP1000.

Westinghouse will submit a table of contents of the DCD for the AP1000 design for review by the NRC. At the conclusion of the Phase II review, Westinghouse expects to reach an agreement with the NRC on the table of contents for the DCD, including a determination of the sections that can be retained from the AP600 DCD that will not be subject to re-review.

The staff states that in order to determine which sections of AP600 DCD will not require re-review for AP1000, Westinghouse should provide a description of its proposed design changes, with a level of detail comparable to that provided in Section 1.2 of the AP600 DCD and a rationale for why changes are not needed in certain sections of the AP600 DCD.

- The AP1000 design certification will not require additional tests to be performed by the applicant.

Westinghouse will submit an AP1000 analysis plan and scaling assessment of the AP600 test program. The NRC should determine whether the AP600 test program meets the requirements of 10 CFR Part 52 for the AP1000 design.

- The AP1000 design certification can utilize the AP600 analysis codes with limited modifications. Westinghouse will submit the AP1000 analysis plan and the scaling assessment of AP600 test program and the AP1000 passive core cooling system design margins assessment. Westinghouse will provide an assessment of the applicability of each code and will identify code changes to address the most significant comments documented in NUREG-1512, "Final Safety Evaluation Report Related to Certification of AP600 Standard Design." The NRC should determine whether the AP600 analysis codes, including the proposed changes are adequate for analyzing the AP1000 design.

For items 2 and 3, the staff states that in order to determine whether the AP600 test program (including test matrices) and code validation are sufficient for AP1000, Westinghouse must develop a phenomena

identification and ranking table (PIRT) for AP1000, identify key thermal-hydraulic phenomena and parameter ranges, and identify any new phenomena or differences from the AP600 PIRTs for large- and small-break LOCAs and non-LOCA transients. In addition, the staff requests Westinghouse to provide necessary information on various thermal-hydraulic tests and codes for use by the staff to determine whether additional tests and code changes are needed for AP1000. For example:

- Westinghouse must demonstrate that the existing separate effects tests on the passive residual heat removal system heat exchanger, automatic depressurization system, and core makeup tank sufficiently cover the range of key thermal-hydraulic phenomena and parameters or acquire additional test data.
- Westinghouse must submit a scaling report for the integral system tests, such as OSU/APEX and SPES-2 (high pressure, full vertical scale) for AP1000 and demonstrate that the test matrices of OSU/APEX and SPES-2 provided adequate coverage of the break sizes and locations to address important system-related phenomena identified in the AP1000 design. It is possible that additional integral system tests may be required, especially for validation of the NOTRUMP code for small-break LOCA analysis and the WCOBRA/TRAC code for long-term cooling analysis.
- Westinghouse will have to (a) provide justification on the acceptability of the WRB-2 CHF correlation to the new fuel design by demonstrating that sufficient test data exist to cover the geometrical and thermal-hydraulic conditions of the new fuel design, (b) acquire additional critical heat flux data to cover the new fuel design and thermal-hydraulic conditions and demonstrate that the WRB-2 correlation adequately predicts new data, or (c) develop a new CHF correlation (including WRB-2 modification).
- Westinghouse needs to explain how the LOFTRAN code has been or will be changed to model AP1000 and why these changes are appropriate.
- The limitations and restrictions, identified in NUREG-1512, on using the WGOthic code model for the AP600 evaluation need to be justified or modified accordingly for AP1000.

- The AP1000 design certification application can utilize the AP600 PRA supplemented with a sensitivity study to meet the requirements for a plant-specific PRA.

Westinghouse will submit the table of contents for the AP1000 PRA sensitivity study and AP1000 Level 1 PRA LOCA success sequences analysis report. The NRC should determine whether the AP600 PRA supplemented with a suitable sensitivity study meets the requirements for the AP1000 plant-specific PRA.

The staff states that Westinghouse should provide the following Level 1 PRA information.

- A detailed description of the approach that will be followed to confirm the validity of the success criteria for both systems and operator actions. In the AP600 PRA, the success criteria were determined by a risk-based margin approach that used conservative assumptions for key thermal-hydraulic parameters, such as decay heat. This process resulted in success criteria that are sequence dependent and take into account thermal-hydraulic uncertainties. Westinghouse should discuss how the proposed design changes will affect the implementation of the margins approach for AP1000. If it is proposed that some portion of the AP600 margins approach implementation be retained, Westinghouse should provide documentation showing that this action will not compromise the robustness of the success criteria (for both systems and human actions) used in the AP1000 PRA models.
- A list of changes is in the AP600 design with an explanation of why such changes would not introduce additional hardware failure mechanisms or increased hardware failure rates. Both power operation and shutdown operation need to be addressed.
- The AP1000 design certification application can defer selected design activities to the combined license (COL) applicant.

Westinghouse proposes to include less design detail in the AP1000 design certification application than was included in the AP600 application. The general arrangement, structural configuration, equipment and piping layout are substantially the same. However, qualification analyses will be deferred to the COL application. Westinghouse requests that the NRC provide feedback on the level of design detail to be included in the AP1000 application.

The NRC staff states that Westinghouse should provide information necessary for the staff to determine whether Westinghouse can use design acceptance criteria (DAC) instead of detailed design information for the AP1000 seismic analysis, structural design, and piping design. Also, Westinghouse should demonstrate several things:

- the dynamic stability of the nuclear island (sliding and overturning)
- the adequacy of the 6-foot thick foundation mat (in the balance of plant area) under the increased design loads (dead loads and seismic loads).
- the design adequacy of the subcompartment walls to withstand higher pressures resulting from the increased size of nuclear steam supply system (NSSS) components
- that AP1000 steel containment will continue to meet the containment performance requirement for severe accidents (withstand the internal pressure at 24 hours after the start of an accident at ASME Service Level C limits)

The members provided the following comments:

- Supplementing the AP600 PRA with a sensitivity analysis may not be sufficient. The AP1000 PRA should include uncertainty distributions on core damage frequency, conditional containment failure probability, and large early release frequency.
- The seismic analysis should not be left solely to the COL applicant and should be included in the AP1000 PRA using a representative site.
- The staff obtained copies of the NOTRUMP, WCOBRA/TRAC, LOFTRAN, and WGOthic codes and performed an independent evaluation of these codes to determine their applicability to assess the adequacy of the AP1000 design.
- An uncertainty analysis should be performed to assess the uncertainties associated with the results of the NOTRUMP, WCOBRA/TRAC, LOFTRAN, and WGOthic codes.

VI. Performance-Based Regulatory Initiatives (Open)

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

Mr. John Sieber, Acting Chairman of the Reliability and Probabilistic Risk Assessment Subcommittee, provided background information regarding the development of the proposed Commission paper concerning high-level guidelines for performance-based activities. He summarized the Committee's previous review activities related to the proposed paper.

Mr. Prasad Kadambi, RES, provided an overview of the development of the proposed guidelines. Mr. Robert Youngblood, ISL, Inc., presented a case study that applied the proposed guidelines to the present requirements for combustible gas control in certain types of containment. He concluded that some aspects of capability and performance parameters are not amenable to performance-based treatment and that the guidelines are useful in evaluating the viability of a performance-based approach within the regulatory framework.

The members and representatives of the staff discussed how the uncertainties associated with the selected parameters are addressed. They also discussed setting capability and performance parameters at the highest possible level of the event tree, and providing explicit guidance for selecting the appropriate number of redundant or overlapping parameters.

Mr. Christopher Smith, ISL, Inc., presented a case study that applied the proposed guidelines to a recently revised rule associated with respiratory protection requirements. He concluded that the results of applying the performance-based guidelines were consistent with the changes made to rule.

Mr. Kadambi explained the interrelationships among regulatory initiatives and the staff's plans for applying the guidelines to future regulatory activities. He concluded that the staff had demonstrated the usefulness of the guidelines and that it expected to improve the guidelines as experience dictated.

The members and the staff discussed the differences between the probability of risk related to radiation and chemicals, why the viability guidelines were tested, and the need for other kinds of acceptance criteria besides core damage frequency (CDF) and large early release frequency (LERF).

Conclusion

The Committee sent a letter dated September 8, 2000 to the EDO on this matter.

VII. License Renewal Guidance Documents (Open)

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

Dr. Bonaca, Chairman of the Plant License Renewal Subcommittee, noted that the staff and industry were developing a set of license renewal guidance documents, which would be released for public comment. He explained that the Subcommittee planned to review these documents during the October 19-20, 2000, ACRS Subcommittee meeting. Dr. Bonaca noted that the purpose of the staff presentation was to explain the status of the documents.

Mr. Christopher Grimes, NRR, informed the Committee that the documents would be distributed to the public over the next several days. Mr. Samson Lee, NRR, provided background related to the development of the guidance documents and an overview of how the documents are intended to work together. He also presented the schedule for review and approval of the documents. Mr. Lee summarized the contents of the standard review plan section, the Generic Aging Lessons Learned Report, the Regulatory Guide, and Revision 2 to NEI 95-10.

The members and the staff discussed differences between the various drafts of the documents, the disposition of the concerns identified in the Union of Concerned Scientists' report, the extent of guidance regarding the scoping and screening processes, and the disposition of license renewal generic issues.

Conclusion

This briefing was for information only. No Committee action is required.

VIII. Operating Events at Indian Power Nuclear Power Plant Unit 2 (Open)

[Mrs. Maggalean W. Weston was the Designated Federal Official for this portion of the meeting.]

Dr. Robert L. Seale, cognizant member, introduced this topic. He said that there would be presentations on two events at Indian Point Unit 2 (IP2). The first event

was a reactor trip with complications that occurred on August 31, 1999. The second event, a steam generator tube failure, occurred on February 15, 2000.

#### NRC Staff Presentations

The presentations on operating events at IP2 focused on two events. After introductory remarks by Mr. Ledyard Marsh, NRR, presentation of the reactor trip with complications was given by Mr. Jimi Yerokum, Region I. The steam generator tube failure presentation was given by Mr. Raymond Lorson, Region I. Mr. James Trapp, Region I, participated in both presentations discussing the risk significance of the events. Mr. Brian Holian, Region I, provided comments throughout the presentations and did a summary at the conclusion of both presentations. The purpose of the presentations was to hear findings and conclusions of the augmented inspection team (AIT) that reviewed the two events at IP2.

#### Reactor Trip with Complications

Mr. Yerokum discussed the event and its causes. On August 31, 1999, the IP2 reactor automatically tripped from 99% power due to a spurious reactor protection system (RPS) overtemperature delta-temperature (OT $\Delta$ T) trip signal. The normal offsite power breakers to all four 480 volt (V) vital buses also tripped unexpectedly, and all three emergency diesel generators (EDGs) started and began to assume loads on their respective 480 V buses. A short time later, the 23 EDG output breaker tripped, leaving the 6A vital bus deenergized. This resulted in a loss of power to one of the two motor-driven auxiliary feedwater pumps, battery charger 24, some emergency core cooling components, and other equipment. Battery 24 subsequently discharged in about 7 hours, causing a loss of power to the direct current (dc) loads on dc panel 24 and the loads on 118 volt alternating current (ac) instrument bus 24. The deenergization of the instrument bus caused a loss of most of the control room annunciators for various safety-related systems, which required the declaration of an Unusual Event. On September 1, 1999, vital bus 6A was reenergized and normal offsite power restored.

Although there was no immediate threat to public health and safety, the event was risk significant. There was no radiological release from the event.

The AIT determined that the event was preventable and was caused primarily by problems in plant configuration control. Contributing to these problems were some notable weaknesses in the corrective action and technical support areas. In

addition, weaknesses in management oversight during the event contributed to the delay in restoring normal electrical power supplies.

A configuration control problem was that the station auxiliary transformer load tap changer was left in a position contrary to the licensing basis. This led to a loss of offsite power to the vital buses following the plant trip. Poor control of emergency diesel generator output breaker short time overcurrent trip settings, compounded by a deficiency in the timing of the sequencing relays for some safety-related loads, caused the loss of emergency power to one of the vital buses.

Management did not promptly recognize the significance of the degrading conditions associated with the event. Managers appeared to focus primarily on developing shutdown work plans and schedules instead of establishing and prioritizing activities to restore plant equipment and to limit further risk. As a result of these weaknesses, station personnel provided poorly coordinated and untimely support to plant operators in restoring normal electrical power. Likewise, the post-trip response organization did not provide support to operations in the review of plant conditions related to the emergency plan. As a result, station personnel did not recognize that they should have declared an Unusual Event when offsite power was lost to all 480 volt vital buses.

Some of the discussion centered around the circumstances of the event, the load tap changer was outside of design basis, and personnel looked at the secondary side of the amp current instead of the primary side. There was also discussion regarding the revised oversight process and whether or not some of these problems would have been identified with the process. The Committee concluded that some of the problems at IP2 were corrective action problems. The latter part of the discussion focused on the risk significance of the event. The NRC estimate of the conditional core damage probability for this event was estimated to be about  $2E-4$ . The licensee's estimate was about  $1.88E-04$ . The IP2 baseline core damage frequency is  $3.3E-05$  for internal events.

#### Steam Generator Tube Failure

Mr. Lorson discussed this event as follows. On February 15, 2000, the IP2 nuclear plant experienced a steam generator tube failure (SGTF) that required the declaration of an Alert and a manual reactor trip. The #24 steam generator (SG) was determined to be the source of the leak and was isolated. The high-pressure steam dump valves were opened causing an excessive primary plant cooldown rate which caused a rapid reduction in the pressurizer level, which

required the initiation of safety injection (SI). The SI was reset, reactor coolant system (RCS) pressure was reduced, and plant cooldown was recommenced. The residual heat removal (RHR) system was placed in service and primary plant pressure was reduced below the #24 SG pressure to terminate the SG tube leakage. The plant entered cold shutdown and the Alert was exited.

The event had moderate risk significance. It resulted in a minor radiological release well within regulatory limits. No radioactivity was measured offsite above normal background levels, and the event did not impact the public health and safety.

Problems were identified in several areas, including operator performance, procedure quality, equipment performance, technical support, and emergency response. These problems challenged the operators, complicated the event response, and delayed the plant cooldown.

A short film was shown of the crack and much of the ensuing discussion focused on the event and the location of the failure.

### Conclusion

This was an information briefing and no action was taken.

### IX. Siemens SRELAP-5 Appendix K Small-Break LOCA Code (Open)

Dr. G. Wallis, Chairman, Thermal-Hydraulic Phenomena (T/H-P) Subcommittee, reported on the results of the T/H-P Subcommittee meeting of August 8-9, 2000 which was held to begin review of the Siemens Power Corporation (SPC) S-RELAP5 code. Specifically, SPC has submitted for NRC staff review and approval an Appendix K small-break (SB) LOCA version of the code. The subcommittee discussions centered on two topics: the details of the code models and correlations, and the specifics of the Appendix K SB LOCA code version.

Dr. Wallis made the following points:

- Perusal of the models and correlations documentation showed numerous instances of missing or incomplete/poor documentation. A number of typos were also found. In some instances the modeling methods used were not explained. Dr. Wallis has a list of these concerns; he will send it to the NRC staff.

- The detailed presentation by Mr. J. Kelly, SPC, on the models and correlations provided substantial information on the code not found in the documentation. The Subcommittee members agreed that Mr. Kelly's presentation made the code appear more robust.
- The code exhibits problems with regard to modeling momentum. However, for the case at hand (the SBLOCA evaluation model), the impact of momentum is small. The Subcommittee believes that SPC should provide a quantitative argument to this effect.
- NRR needs to consider what acceptance criteria it will apply to the uncertainty in the code outputs. Mr. Caruso, NRR, said that this issue is addressed in a regulatory guide addressing use of "best estimate" ECCS codes (Regulatory Guide 1.157).
- For the SBLOCA code, the SPC assessment process appeared weak. Dr. Powers said that SPC agreed that a more logical and disciplined approach is needed here.
- Problems were seen in the modeling of void distribution in the core and the liquid level model for the loop seal clearing. For the latter, SPC biased the model to ensure consistent results, as the code cannot model two-phase instability.
- Mr. Landry, NRR, said that the SPC SBLOCA code will only be applicable to three- and four-loop Westinghouse PWR plants. He also said that the staff will impose conditions on the use of this code version. In a related matter, NRR said that the draft regulatory guide and the SRP section pertaining to submittal and review of codes are scheduled to be issued for public comment in September 2000.
- In closing, Dr. Wallis said that the Subcommittee does not plan further review of this matter until the staff has issued its safety evaluation, scheduled for the December or January.

X. Annual Report to the Commission on the NRC Safety Research Program (Open)

The Committee continued its discussion of the NRC Safety Research Program and the format and content of the ACRS 2001 report. The Committee indicated that the focus of its report will be on the long-term research needed to facilitate the execution of the NRC's mission in the future. In addition, the report should be helpful to the Commission in determining when a research effort has yielded enough information for regulatory decision making. The Office of Nuclear Regulatory Research will cooperate with ACRS on this report.

Conclusion

The Committee will continue its discussion and preparation of the ACRS 2001 report to the Commission on the NRC research programs at future ACRS meetings and at a Subcommittee meeting scheduled for November 1, 2000.

XI. Union of Concerned Scientists Report, "Nuclear Plant Risk Studies: Failing the Grade" (Open) (Unscheduled Agenda Item)

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

The Committee held an unplanned, unscheduled discussion with Mr. David Lochbaum of the Union of Concerned Scientists (UCS) concerning the UCS report August 2000 report entitled "Nuclear Plant Risk Studies: Failing the Grade." The Committee discussed the UCS concern regarding the industry's use or misuse of risk information for burden reduction. The Committee also discussed the UCS concern over the number of risk-informed license amendment requests being processed by the NRC staff without the benefit of licensee's detailed risk analysis. UCS contends that the staff has limited ability to detect poor risk analysis because licensees normally only submit their conclusions, omitting the applicable portions of the PRA or supplemental analysis.

Dr. Apostolakis asked about the apparent omission of PRA contributions to the development of regulations such as the Station Blackout (SBO) Rule, the Anticipated Transient Without Scram (ATWS) Rule, and the requirement for automatic actuation of auxiliary feedwater. Mr. Lochbaum stated that these regulations were promulgated in response to operating plant events and not PRA.

Dr. Apostolakis asked about the UCS recommendation that no risk decisions be made until industrial standards (e.g., ASME, ANS, NFPA, etc.) are approved or

endorsed by the NRC. Mr. Lochbaum stated that he had a discussion with representatives of the NRC Office of the Inspector General about this recommendation. He stated that the UCS believes that no risk-informed decision should be made by the NRC without reviewing the licensee's risk analysis.

### Conclusion

The Committee decided to continue its review of the UCS report during the October 5-7, 2000 ACRS meeting.

## XII. 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 Executive Director for Operations (EDO) dated July 25, 2000, to ACRS comments and recommendations included in its letter dated June 20, 2000, concerning the proposed final Regulatory Guide and Standard Review Plan Section associated with the Alternative Source Term Rule.

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

- The Committee discussed the response from the EDO dated July 27, 2000, to the ACRS comments and recommendations included in the ACRS report dated June 22, 2000, concerning the staff's draft report, "Regulatory Effectiveness of the Station Blackout Rule."

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

- The Committee discussed the response from the EDO dated August 30, 2000, to the ACRS comments and recommendations included in the ACRS report dated July 20, 2000, concerning the Nuclear Energy Institute letter dated January 19, 2000, addressing NRC plans for risk-informing the technical requirements in 10 CFR Part 50.

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

- The Committee discussed the response from the EDO, dated July 14, 2000, to ACRS comments and recommendations included in the ACRS/ACNW joint report dated May 25, 2000, concerning use of defense in depth for risk-informing the activities of the Office of Nuclear Materials Safety and Safeguards.

The Committee decided that it was satisfied with the EDO's response but recommended that the ACRS/ACNW Joint Subcommittee follow-up during future meetings on selected issues such as defense in depth versus safety margins, risk acceptance criteria and safety goals, and options to achieve balance between compensatory measures and reduction in risk concerning the high-level waste repository.

- The Committee discussed the response from the EDO, dated July 20, 2000, to the ACRS comments and recommendations included in the ACRS report dated June 20, 2000, concerning the proposed resolution of Generic Safety Issue-173A, "Spent Fuel Storage Pool for Operating Facilities."

The Committee decided it was satisfied with the EDO's response, but it will continue to follow-up on this issue as work progresses.

- The Committee discussed the response from the EDO, dated July 17, 2000, to the ACRS comments and recommendations included in the ACRS/ACNW report (NUREG-1635, Vol. 3) dated March 2000, concerning the review and evaluation of the Nuclear Regulatory Commission safety research program.

The Committee decided it was satisfied with the EDO's response, but it will continue to follow-up and discuss this matter with the NRC staff as work progresses.

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 August 28, 2000. The following items were discussed:

Review of the Member Assignments and Priorities for ACRS Reports and Letters for the

Member assignments and priorities for ACRS reports and letters for the September ACRS were discussed. Reports and letters that would benefit from additional consideration at a future ACRS meeting were discussed.

Anticipated Workload for ACRS Members

The anticipated workload of the ACRS members through November 2000 was discussed. The objectives were:

- Review the reasons for the scheduling of each activity and the expected work product and to make changes, as appropriate
- Manage the members' workload for these meetings
- Plan and schedule items for ACRS discussion of topical and emerging issues

During this session, the Subcommittee discussed and developed recommendations on the items that require a Committee decision.

Differing Professional Opinion (DPO) Issues Associated with Steam Generator Tube Integrity

In a memorandum dated July 20, 2000, to the ACRS Executive Director from the EDO, it was requested that the ACRS assist in the process of reviewing a DPO on steam generator tube integrity issues. Specifically, the EDO requested that the ACRS function as the equivalent of an ad hoc panel, under the NRC Management Directive 10.159 to review the DPO.

Subsequent to the EDO memorandum, the DPO author requested a meeting with the ACRS Executive Director. On July 24, 2000, Dr. Larkins and Mr. Duraiswamy met with the DPO author to discuss the EDO's request to the ACRS, previous ACRS comments on Generic Letter 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes," and other related matters. During that meeting, the DPO author stated that he did not have any objection to the ACRS reviewing the DPO issues as requested by the EDO and has some concerns that warrant the attention of the EDO. In a memorandum dated July 28, 2000, the DPO author provided his concerns to the EDO. The EDO responded to the DPO author on August 4, 2000 stating that: "In selecting the ACRS as the ad hoc

panel, I considered its previous involvement in and knowledge of the technical issues.” Dr. Larkins also sent a memorandum to the DPO author on August 14, 2000 documenting the items discussed with the DPO author on July 24, 2000. The EDO plans to provide consultants (Dr. Catton, Thermal-Hydraulic Issues; Dr. Richer, NIST, IGSCC; and Mr. Higgins, BNL, Human Performance) to the ACRS to provide technical support in reviewing the DPO issues.

#### ASLB Decision on Shearon Harris

The ACRS reports on spent fuel pool fires at decommissioning plants and the report on generic safety issue for spent fuel pools for operating plants have been referenced in the ASLB petition on Shearon Harris’ amendment to its operating license to modify its spent fuel pool (pp. 12-32). As a result of interveners referencing the ACRS reports in their case to support the need for NRC staff to prepare an environmental impact statement, the ACRS members, staff, or consultants could be subject to discovery in these proceedings, which may require ACRS members, staff, or consultants to provide testimony or written material for these hearings.

The Board of Commissioners of Orange County (BCOC), North Carolina, is seeking admission of four late-filed environmental contentions (ECs) in the matter of Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant). The Atomic Safety and Licensing Board (ASLB) on August 7, 2000, ordered that one contention (EC-6) be admitted for litigation; and rejected three contentions (EC-7, EC-8, EC-9) as inadmissible for litigation.

The ASLB in its ruling ordered the parties to conduct discovery beginning on August 21, 2000, and ending on October 20, 2000. The ASLB also notes that any attempt to obtain discovery materials from the ACRS is subject to the exceptional circumstances of 10 CFR 2.720 (h).

#### Power Uprate Issues

Mr. Boehnert summarized the list of issues associated with power uprates along with an anticipated schedule for ACRS review of power uprate applications.

475th ACRS Meeting  
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Also, Dr. Cronenberg, ACRS Senior Fellow, developed a list of central issues associated with power uprates. This list was distributed to the members during the July 2000 ACRS meeting for review and comment.

#### Technical Exchange Meeting with RSK

During the July 2000 ACRS meeting, the Committee selected November 6-10, 2000, for a technical exchange meeting with RSK. The RSK has agreed to these dates for this meeting. ACRS members Apostolakis, Bonaca, Kress, Sieber, and Wallis plan to attend this meeting. Current plans would include travel to Germany and travel to Erlangen for a visit and discussion with Siemens and GRS consultants on digital I&C systems. Subsequently, we would travel to Munich, Garching, for a meeting with members of the RSK and GRS and BMU to discuss I&C issues, use of PRA in the regulatory process, future research needs for reactor safety, and other generic safety issues of interest to either Committee.

#### American Nuclear Society 2000 Utility Working Conference

Mr. Noel Dudley, ACRS staff, attended the ANS 2000 Utility Working Conference held at the Amelia Island Plantation, Florida, on August 6-10, 2000. The primary focus of the conference was on managing the business of nuclear power.

#### New ACRS/ACNW Compensation Report Form

The ACRS/ACNW Member Compensation Report has been revised to capture data on how much time members spend on the review of technical topics (e.g., license renewal, AP 1000, etc.).

#### License Renewal White Paper

The Subcommittee discussed a paper prepared by Dr. Bonaca on Potential Synergistic Effects of Industry Initiatives to Extend Plant Life, Increase Production, and Reduce Regulatory Burden.

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C. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 476th ACRS Meeting, October 5-7, 2000.

The 475th ACRS meeting was adjourned at 12:05 p.m. on Friday, September 1, 2000.

Signed at Washington, D.C. this 10th day of August, 2000.

Carl J. Poleskey,

Chief, Branch of Construction Wage Determinations.

[FR Doc. 00-20771 Filed 8-17-00; 8:45 am]

BILLING CODE 4510-27-M

## NUCLEAR REGULATORY COMMISSION

### Revised Meeting Notice; Reactor Safeguard Advisory Committee

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 August 29-September 1, 2000, in Conference Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The date of this meeting was previously published in the Federal Register on Thursday, October 14, 1999 (64 FR 55787).

#### Tuesday, August 29, 2000

**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.: Proposed Risk-Informed Revisions to 10 CFR Part 50 (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) regarding proposed NRC framework document for risk-informing the technical requirements of 10 CFR Part 50, proposed revisions to 10 CFR 50.44 concerning combustible gas control systems, and advance notice of proposed rulemaking (10 CFR 50.69 and Appendix T).

**10:15 A.M.—11:15 A.M.: Causes and Significance of Design Basis Issues (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding a study of design basis issues and trends.

**11:15 A.M.—12:00 Noon: Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Bases (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the proposed final version of the Regulatory Guide.

**1:00 P.M.—1:45 P.M.: AP1000 Standard Plant Design (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and the Westinghouse Electric Company

regarding issues identified during AP1000 pre-application review (Phase 1).

**1:45 P.M.—3:15 P.M.: Break and Preparation of Draft ACRS Reports (Open)**—Cognizant ACRS members will prepare draft reports, as needed, for consideration by the full Committee.

**3:15 P.M.—7:00 P.M.: Discussion of Proposed ACRS Reports (Open)**—The Committee will discuss proposed ACRS reports on matters considered during this meeting. In addition, the Committee will discuss a proposed ACRS report on Assessment of the Quality of PRAs.

#### Wednesday, August 30, 2000

**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.—9:30 A.M.: Performance-Based Regulatory Initiatives (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding a Commission paper associated with performance-based regulatory initiatives.

**9:30 A.M.—10:15 A.M.: License Renewal Guidance Documents (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the contents of the proposed Standard Review Plan, Generic Aging Lessons Learned Report, and a Regulatory Guide and associated NEI guidance documents.

**10:30 A.M.—12:00 Noon: Operating Events at Indian Point Nuclear Power Plant Unit 2 (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and the licensee regarding the events, noted below, that occurred at the Indian Point Unit 2 Nuclear Power Plant and the associated staff findings, conclusions, and recommendations resulting from the evaluations of these events: (1) February 15, 2000 steam generator tube rupture event and (2) August 31, 1999 event involving reactor trip and loss of all off-site power.

**1:00 P.M.—1:30 P.M.: Siemens SRELAP-5 Best-Estimate Small-Break LOCA Code (Open/Closed)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and Siemens Corporation regarding the Siemens SRELAP-5 best-estimate code for application to analysis of transients and small-break loss of coolant accident (LOCA). [NOTE: A portion of this session may be closed to discuss Siemens Corporation's proprietary

information pursuant to 5 U.S.C. 552b(c)(4)].

**1:30 P.M.—2:30 P.M.: Break and Preparation of Draft ACRS Reports (Open)**—Cognizant ACRS members will prepare draft reports, as needed, for consideration by the full Committee.

**2:30 P.M.—7:00 P.M.: Discussion of Proposed ACRS Reports (Open)**—The Committee will discuss proposed ACRS reports.

#### Thursday, August 31, 2000

**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.—8:45 A.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 made available to the Committee prior to the meeting.

**8:45 A.M.—9:45 A.M.: Future ACRS Activities/Report of the Planning and Procedures Subcommittee (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. Also, it 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.

**9:45 A.M.—10:45 A.M.: Annual Report to the Commission on the NRC Safety Research Program (Open)**—The Committee will discuss the format and content of the annual ACRS report to the Commission on the NRC Safety Research Program.

**11:00 A.M.—12:00 Noon: 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.

**1:00 P.M.—4:00 P.M.: Meeting with the NRC Commissioners on October 6, 2000 (Open)**—The Committee will discuss and prepare topics for meeting with the Commissioners scheduled for October 6, 2000.

**4:00 P.M.—6:00 P.M.: Discussion of Proposed ACRS Reports (Open)**—The Committee will continue its discussion of proposed ACRS reports.

Friday, September 1, 2000

**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.—1:00 P.M.: Discussion of Proposed ACRS Reports (Open)**—The Committee will continue its discussion of proposed ACRS reports.

Procedures for the conduct of and participation in ACRS meetings were published in the *Federal Register* on September 28, 1999 (64 FR 52353). 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 Mr. Howard J. Larson, ACRS, 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 the 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 Mr. Howard J. Larson 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 Mr. Howard J. Larson if such rescheduling would result in major inconvenience.

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 Mr. Howard J. Larson (telephone 301/415-6805), between 7:30 a.m. and 4:15 p.m., EDT.

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., EDT, 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: August 14, 2000.

Andrew L. Bates,

Advisory Committee Management Officer.

[FR Doc. 00-21061 Filed 8-17-00; 8:45 am]

BILLING CODE 7880-01-P

## RAILROAD RETIREMENT BOARD

### Agency Forms Submitted for OMB Review

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the Railroad Retirement Board (RRB) has submitted the following proposal(s) for the collection of information to the Office of Management and Budget for review and approval.

#### Summary of Proposal(s)

- (1) *Collection title:* Evidence for Application of Overall Minimum.
- (2) *Form(s) submitted:* G-319, G-320.
- (3) *OMB Number:* 3220-083.
- (4) *Expiration date of current OMB clearance:* 10/31/2000.
- (5) *Type of request:* Extension of a currently approved collection.
- (6) *Respondents:* Individuals or households.
- (7) *Estimated annual number of respondents:* 290.
- (8) *Total annual responses:* 121.
- (9) *Total annual reporting hours:* 121.
- (10) *Collection description:* Under section 3(f)(3) of the Railroad Retirement Act, the total monthly benefit payments payable to a railroad employee and his family are guaranteed to be no less than the amount which would be payable if the employee's railroad service had been covered by the Social Security Act.

**ADDITIONAL INFORMATION OR COMMENTS:** Copies of the forms and supporting documents can be obtained from Chuck Mierzwa, the agency clearance officer (312-751-3363). Comments regarding the information collection should be addressed to Ronald J. Hodapp, Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois, 60611-2092 and the OMB reviewer, Joe Lackey (202-395-7316), Office of Management and Budget, Room 10230, New Executive

Office Building, Washington, D.C. 20503.

Chuck Mierzwa,

Clearance Officer.

[FR Doc. 00-21068 Filed 8-17-00; 8:45 am]

BILLING CODE 7905-01-M

## RAILROAD RETIREMENT BOARD

### Agency Forms Submitted for OMB Review

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the Railroad Retirement Board (RRB) has submitted the following proposal(s) for the collection of information to the Office of Management and Budget for review and approval.

#### Summary of Proposal(s)

- (1) *Collection title:* Student Beneficiary Monitoring.
- (2) *Form(s) submitted:* G-315, G-315a, G-315a.1.
- (3) *OMB Number:* 3220-0123.
- (4) *Expiration date of current OMB clearance:* 10/31/2000.
- (5) *Type of request:* Extension of a currently approved collection.
- (6) *Respondents:* Individuals or households.
- (7) *Estimated annual number of respondents:* 1,230.
- (8) *Total annual responses:* 1,230.
- (9) *Total annual reporting hours:* 121.
- (10) *Collection description:* Under the Railroad Retirement Act (RRA), a student benefit is not payable if the student ceases full-time school attendance, marries, works in the railroad industry, has excessive earnings or attains the upper age limit under the RRA. The report obtains information to be used in determining if benefits should cease or be reduced.

**ADDITIONAL INFORMATION OR COMMENTS:** Copies of the forms and supporting documents can be obtained from Chuck Mierzwa, the agency clearance officer (312-751-3363). Comments regarding the information collection should be addressed to Ronald J. Hodapp, Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois, 60611-2092 and the OMB reviewer, Joe Lackey (202-395-7316), Office of Management and Budget, Room 10230, New Executive Office Building, Washington, D.C. 20503.

Chuck Mierzwa,

Clearance Officer.

[FR Doc. 00-21069 Filed 8-17-00; 8:45 am]

BILLING CODE 7905-01-M



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

REVISED

August 9, 2000

**SCHEDULE AND OUTLINE FOR DISCUSSION**  
**475<sup>TH</sup> ACRS MEETING**  
**AUGUST 29 - SEPTEMBER 1, 2000**

**TUESDAY, AUGUST 29, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH,  
 ROCKVILLE, MARYLAND**

- 1) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open)
  - 1.1) Opening statement (DAP/JTL/HJL)
  - 1.2) Items of current interest (DAP/NFD/HJL)
  - 1.3) Priorities for preparation of ACRS reports (DAP/JTL/HJL)
  
- 2) 8:35 - <sup>10:55</sup>~~10:00~~ A.M. Proposed Risk-Informed Revisions to 10 CFR Part 50 (Open)  
 (WJS/GA/MTM)
  - 2.1) Opening remarks by the Subcommittee Chairman
  - 2.2) Briefing by and discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) regarding proposed NRC framework document for risk-informing the technical requirements of 10 CFR Part 50, proposed revisions to 10 CFR 50.44 concerning combustible gas control systems, and advance notice of proposed rulemaking (10 CFR 50.69 and Appendix T).
  
- <sup>10:55 - 11:10</sup>  
~~10:00 - 10:15~~ A.M. **\*\*\*BREAK\*\*\***
  
- 3) <sup>11:10 - 12:25</sup>  
~~10:15 - 11:15~~ A.M. Causes and Significance of Design Basis Issues (Open) (RLS/MWW)
  - 3.1) Remarks by the Subcommittee Chairman
  - 3.2) Briefing by and discussions with representatives of the NRC staff regarding a study of design basis issues and trends.
  
- 4) <sup>12:25</sup>  
~~11:15 -~~ NOON Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis (Open) (RLS/MWW)
  - 4.1) Remarks by the Subcommittee Chairman
  - 4.2) Briefing by and discussions with representatives of the NRC staff and NEI regarding the proposed final version of the Regulatory Guide.
  
- <sup>12:45 - 2:00</sup>  
~~12:00 - 1:00~~ P.M. **\*\*\*LUNCH\*\*\***

- 5) <sup>2:00-2:40</sup>  
1:00 - 1:45 P.M. AP1000 Standard Plant Design (Open) (TSK/SD)  
5.1) Remarks by the Subcommittee Chairman  
5.2) Briefing by and discussions with representatives of the NRC staff regarding issues identified during AP1000 pre-application review (Phase 1).

Representatives of the nuclear industry will provide their views, as appropriate.

- 6) <sup>2:40</sup>  
1:45 - 3:15 P.M. Break and Preparation of Draft ACRS Reports (Open)  
Cognizant ACRS members will prepare draft reports, as needed, for consideration by the full Committee.

- 7) <sup>3:15-3:45 Break</sup>  
3:15 - 7:00 P.M.  
<sup>3:45 - 6:00</sup> Discussion of Proposed ACRS Reports (Open)  
Discussion of proposed ACRS reports on:  
7.1) Proposed NRC Framework Document for Risk-Informing 10 CFR Part 50 and Associated Revisions to 10 CFR 50.44 Concerning Combustible Gas Control Systems, and Advance Notice of Proposed Rulemaking (10 CFR 50.69 and Appendix T) (WJS/GA/MTM)  
7.2) Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis (RLS/MWW)  
7.3) AP1000 Pre-Application Review (TSK/SD)  
7.4) Assessment of the Quality of PRAs (GA/MTM)

**WEDNESDAY, AUGUST 30, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND**

- 8) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/JTL)  
9) <sup>9:45</sup>  
8:35 - 9:30 A.M. Performance-Based Regulatory Initiatives (Open) (JDS/NFD)  
9.1) Remarks by the Subcommittee Chairman  
9.2) Briefing by and discussions with representatives of the NRC staff regarding a Commission paper associated with performance-based regulatory initiatives.

Representatives of the nuclear industry will provide their views, as appropriate.

- 10) <sup>9:45-10:25</sup>  
9:30 - 10:15 A.M. License Renewal Guidance Documents (Open) (MVB/NFD)  
10.1) Remarks by the Subcommittee Chairman  
10.2) Briefing by and discussions with representatives of the NRC staff regarding the contents of the proposed Standard Review Plan, Generic Aging Lessons Learned Report, a Regulatory Guide and associated NEI guidance documents.

Representatives of the nuclear industry will provide their views, as appropriate.

- <sup>10:25-10:45</sup>  
10:15 - 10:30 A.M. **\*\*\*BREAK\*\*\***

- 11) <sup>10:45-12:28</sup> 10:30 - 12:00 Noon Operating Events at Indian Point Nuclear Power Plant Unit 2 (Open) (RLS/MWW)  
 11.1) Remarks by the Subcommittee Chairman  
 11.2) Briefing by and discussions with representatives of the NRC staff and the licensee regarding the events, noted below, that occurred at the Indian Point Unit 2 Nuclear Power Plant and the associated staff findings, conclusions, and recommendations resulting from the evaluation of these events.
- February 15, 2000 steam generator tube rupture event.
  - August 31, 1999 event involving reactor trip and loss of off-site power.
- 12) <sup>12:30-1:30</sup> 12:00 - 1:00 P.M. **\*\*\*LUNCH\*\*\***  
<sup>1:30-2:10</sup> 1:00 - 1:30 P.M. Siemens SRELAP-5 Appendix K Small-Break LOCA Code (Open/Closed) (GBW/PAB)  
 Report by the Chairman of the Thermal-Hydraulic Phenomena Subcommittee regarding the Siemens SRELAP-5 Appendix K code version for application to analysis of small-break loss of coolant accident (LOCA).
- 13) <sup>2:15</sup> 1:30 - 2:30 P.M. Break and Preparation of Draft ACRS Reports  
*Discuss the members revised compensation form.*  
 Cognizant ACRS members will prepare draft reports for consideration by the full Committee.
- 14) <sup>2:50</sup> 2:30 - 7:00 P.M. Discussion of Proposed ACRS Reports (Open)  
 Discussion of proposed ACRS reports on:
- <sup>3:00-3:10</sup> 14.1) Performance-Based Regulatory Initiatives (JDS/NFD)  
<sup>3:42-5:10</sup> 14.2) Proposed NRC Framework Document for Risk-Informing 10 CFR Part 50 and Associated Revisions to 10 CFR 50.44 Concerning Combustible Gas Control Systems, and Advance Notice of Proposed Rulemaking (10 CFR 50.69 and Appendix T) (WJS/GA/MTM)  
<sup>3:25-3:40</sup> 14.3) Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis (RLS/MWW)  
<sup>5:25-5:50</sup> 14.4) AP1000 Pre-Application Review (TSK/SD)  
 14.5) Assessment of the Quality of PRAs (GA/MTM)

**THURSDAY, AUGUST 31, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND**

- 15) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/JTL)  
<sup>8:35-9:15</sup> *Discuss UCS letter w/D. Lochbaum, UCS*
- 16) 8:35 - 8:45 A.M. Reconciliation of ACRS Comments and Recommendations (Open) (DAP, et al./HJL, et al.)  
<sup>9:15-9:30</sup> Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

- 9:30 - 10:20  
 17) ~~8:45 - 9:45 A.M.~~ Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open) (DAP/JTL/HJL)  
 17.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future ACRS meetings.  
 17.2) 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.

10:20 - 10:30 Break

- (18) ~~9:45 - 10:45 A.M.~~ Annual Report to the Commission on the NRC Safety Research Program (Open) (DAP/MME)  
 11:30 - 2:30  
 Discussion of the format and content of the annual ACRS report to the Commission on the NRC Safety Research Program.

~~10:45 - 11:00 A.M. \*\*\*BREAK\*\*\*~~

- 19) 11:00 - 12:00 Noon Miscellaneous (Open) (DAP/JTL)  
 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.

11:50 - 12:50

~~12:00 - 1:00 P.M. \*\*\*LUNCH\*\*\*~~

- 20) ~~1:00 - 4:00 P.M.~~ Meeting with the NRC Commissioners on October 6, 2000 (Open) (DAP, et al./JTL, et al.)  
 Discussion of topics and preparation for meeting with the Commissioners scheduled for October 6, 2000.  
*Discuss Ad Hoc S/C w/ Members for topics re: revision (see 10/27)*

- 21) ~~4:00 - 6:00 P.M.~~ Discussion of Proposed ACRS Reports (Open)  
 Discussion of proposed ACRS reports on:  
 11:05 - 11:40 + 4:55 - 5:47  
 21.1) Performance-Based Regulatory Initiatives (JDS/NFD) *Final*  
 21.2) Proposed NRC Framework Document for Risk-Informing 10 CFR Part 50 and associated Revisions to 10 CFR 50.44 concerning Combustible Gas Control Systems, and Advance Notice of Proposed Rulemaking (10 CFR 50.69 and Appendix T) (WJS/GA/MTM) *Final*  
 3:40 - 4:00 21.3) Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis (RLS/MWW) *Final*  
 4:10 - 4:55 21.4) AP1000 Pre-Application Review (TSK/SD) *Final*  
 11:40 - 11:50 21.5) Assessment of the Quality of PRAs (GA/MTM) *Final*

**FRIDAY, SEPTEMBER 1, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND**

- 22) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/JTL)  
 23) 8:35 - ~~1:00 P.M.~~ <sup>12:05</sup> Discussion of Proposed ACRS Reports (Open) - The Committee will continue its discussion of proposed ACRS reports as noted in item 22.

**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

475TH ACRS MEETING  
AUGUST 29-SEPTEMBER 1, 2000

### NRC STAFF (August 29, 2000)

A. Levin, OCM/RAM  
A. H. Hsia, OCM/NJD  
J. Beall, OCM/EM  
J. Munday, OCM  
J. Calvo, NRR  
T. Bergman, NRR  
J. Williams, NRR  
T. Reed, NRR  
A. Markley, NRR  
J. Fair, NRR  
E. McKenna, NRR  
S. Magruder, NRR  
G. Imbro, NRR  
G. Parry, NRR  
M. Shuarbi, NRR  
M. Check, NRR  
J. Golla, NRR  
S. West, NRR  
C. Carpenter, NRR  
E. Rodrick, NRR  
G. Bagchi, NRR  
K. Heck, NRR  
D. Fischer, NRR  
C. Ader, NRR  
M. Rubin, NRR  
G. Hsi, NRR  
D. Mathews, NRR  
D. Allison, NRR  
C. Berlinger, NRR  
J. Wilson, NRR  
C. Grimes, NRR  
T. Johnson, NMSS  
R. Wescott, NMSS  
H. VanderMolen, RES  
F. Eltawila, RES  
J. Mitchell, RES

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC (August 29, 2000)

B. Christie, Performance Technology  
C. W. Fleming, Winston & Strawn  
A. Heymer, NEI  
P. Negus, GE  
N. Chapman, SERCH/Bechtel  
R. Huston, Licensing Support Services  
R. Bell, NEI  
M. Knapik, McGraw-Hill  
J. Weil, McGraw-Hill  
C. Brinkman, Westinghouse  
M. Corletti, Westinghouse

NRC STAFF (August 30, 2000)

A. Levin, OCM/RAM  
A. Hsia, OCM/NJD  
F. Eltawila, RES  
N. Kadambi, RES  
J. Muscara, RES  
J. Mitchell, RES  
G. Lanik, RES  
D. Marksberry, RES  
T. Bloomer, NRR  
D. Matthews, NRR  
R. Franovich, NRR  
P. Kuo, NRR  
J. Dozier, NRR  
G. Bagchi, NRR  
L. B. March, NRR  
P. King, NRR  
W. Liu, NRR  
C. Ader, NRR  
S. Lee, NRR  
J. Strisha, NRR  
S. Mithia, NRR  
K. Ross, NRR  
O. Tabatabai, NRR  
C. Gratton, NRR  
E. Benner, NRR  
F. Gallardo, NRR  
I. Jung, NRR

S. Long, NRR  
R. Benedict, NRR  
R. Schaaf, NRR  
C. Grimes, NRR  
S. Newberry, NRR  
R. Landry, NRR  
R. Caruso, NRR  
S. Mitina, NRR  
R. Lorson, NRR  
J. Yerokim, Region I  
B. Holian, Region I  
J. Trapp, Region I  
J. Talieri, Region I

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

V. Youngblood, Self  
R. Janaty, PA Dept.  
N. Chapman, SERCH/Bechtel  
R. Huston, Licensing Support Services  
P. Negus, GE  
K. Sutton, Winston & Strawn  
B. Youngblood, ISL, Inc.  
C. Smith, ISL, Inc.  
M. Wetterhahn, Winston & Strawn  
J. Groth, ConEd, NY  
J. McCann, ConEd, NY  
J. Weil, McGraw-Hill

NRC STAFF (August 31, 2000)

G. Millman, EDO  
R. Barrett, NRR  
J. Mitchell, RES

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

D. Lochbaum, UCS  
J. Weil, McGraw-Hill



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

September 13, 2000

**SCHEDULE AND OUTLINE FOR DISCUSSION**  
**476<sup>TH</sup> ACRS MEETING**  
**OCTOBER 5-7, 2000**

**THURSDAY, OCTOBER 5, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND**

- 1) 8:30 - 8:45 A.M. Opening Remarks by the ACRS Chairman (Open)
- 1.1) Opening statement (DAP/JTL/HJL)
  - 1.2) Items of current interest (DAP/NFD/HJL)
  - 1.3) Priorities for preparation of ACRS reports (DAP/JTL/HJL)
- 2) 8:45 - 10:00 A.M. Discussion of Union of Concerned Scientists Report, "Nuclear Plant Risk Studies: Failing the Grade" (Open) (GA/MTM)
- Briefing by and discussions with representatives of the Union of Concerned Scientists (UCS), the NRC staff, and other interested parties concerning the August 2000 UCS report on nuclear plant risk studies.
- 10:00 - 10:15 A.M. \*\*\*BREAK\*\*\***
- 3) 10:15 - 11:30 A.M. NEI 00-02, "Industry PRA Peer Review Process Guidelines" (Open) (GA/MTM)
- 3.1) Opening remarks by the Subcommittee Chairman
  - 3.2) Briefing by and discussions with representatives of the Nuclear Energy Institute (NEI) and the NRC staff regarding the proposed industry PRA certification guidelines described in the document NEI 00-02.
- Representatives of the nuclear industry will provide their views, as appropriate.
- 4) 11:30 - 12:30 P.M. Staff Views on ASME Standard for PRA for Nuclear Power Plant Applications (Open) (GA/MTM)
- 4.1) Remarks by the Subcommittee Chairman
  - 4.2) Briefing by and discussions with representatives of the NRC staff regarding the staff's August 14, 2000 response to the American Society of Mechanical Engineers (ASME) draft Revision 12 ASME Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications.
- Representatives of the nuclear industry will provide their views, as appropriate.
- 12:30 - 1:30 P.M. \*\*\*LUNCH\*\*\***

- 5) 1:30 - 3:30 P.M. Pressurized Thermal Shock Technical Bases Reevaluation Project (Open) (WJS/NFD)  
 5.1) Remarks by the Subcommittee Chairman  
 5.2) Briefing by and discussions with representatives of the NRC staff regarding the pressurized thermal shock technical bases reevaluation project.
- 6) 3:30 - 4:30 P.M. Break and Preparation of Draft ACRS Reports (Open)  
 Cognizant ACRS members will prepare draft reports, as needed, for consideration by the full Committee.
- 7) 4:30 - 6:00 P.M. Discussion of Proposed ACRS Reports (Open)  
 Preparation of proposed ACRS reports on:  
 7.1) Union of Concerned Scientists Report on Nuclear Plant Risk Studies (GA/MTM)  
 7.2) NEI 00-02, "Industry PRA Peer Review Process Guidelines" (GA/MTM)  
 7.3) Pressurized Thermal Shock Technical Bases Reevaluation Project (WJS/NFD)
- 8) 6:00 - 7:00 P.M. Discussion of Topics for Meeting with the NRC Commissioners (Open) (DAP, et al./JTL, et al.)  
 Discussion of topics and preparation for meeting with the NRC Commissioners scheduled for 9:30 a.m. - 12:00 Noon, Friday, October 6 concerning:  
 8.1) Risk Informing 10 CFR 50 (WJS/MTM)  
 - NEI Letter of January 19, 2000  
 - Proposed Revision to 10 CFR 50.44 Concerning Combustible Gas Control System and Advance Notice of Proposed Rulemaking (10 CFR 50.69 and Appendix T)  
 8.2) Quality of PRAs (GA/MWW)  
 - Assessment of the Quality of PRAs  
 - ASME Standard on PRAs  
 8.3) Spent Fuel Pool Fire Safety Study (TSK/MME)  
 8.4) More Realistic (Best Estimate) Thermal-Hydraulic Codes (GW/PAB)  
 8.5) Status of ACRS Activities on License Renewals (MVB/NFD)

**FRIDAY, OCTOBER 6, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND**

- 9) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/JTL)
- 10) 8:35 - 9:15 A.M. Discussion of Topics for Meeting with the NRC Commissioners (Open) (DAP, et al./JTL, et al.)  
 Discussion of topics listed under Item 8.
- 9:15 - 9:30 A.M. **\*\*\*BREAK\*\*\***

- 11) 9:30 - 12:00 Noon Meeting with the NRC Commissioners (Open) (DAP, et al./JTL, et al.)  
Meeting with the NRC Commissioners, Commissioners' Conference Room, One White Flint North, to discuss topics listed under Item 9 and other items of mutual interest.
- 12:00 - 1:30 P.M. **\*\*\*LUNCH\*\*\***
- 12) 1:30 - 3:00 P.M. Discussion of Industry Issues (Open) (DAP/RPS)  
Presentation by R. Beedle, Senior Vice President, NEI, on issues of mutual interest.
- 3:00 - 3:15 P.M. **\*\*\*BREAK\*\*\***
- 13) 3:15 - 4:45 P.M. GSI-168, Equipment Qualification (Open) (REU/AS)  
14.1) Remarks by the Subcommittee Chairman  
14.2) Briefing by and discussions with representatives of the NRC staff regarding the GSI-168, Equipment Qualification.
- 14) 4:45 - 5:30 P.M. ACRS Review of Generic Guidance Documents Associated with License Renewal (Open) (MVB/NFD)  
The Committee members will discuss concerns identified during their initial review of the draft guidance documents.
- 15) 5:30 - 5:50 P.M. Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open) (DAP/JTL/HJL)  
15.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future ACRS meetings.  
15.2) 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.
- 16) 5:50 - 6:00 P.M. Reconciliation of ACRS Comments and Recommendations (Open) (DAP, et al./HJL, et al.)  
Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.
- 17) 6:00 - 6:30 P.M. Break and Preparation of Draft ACRS Reports  
Cognizant ACRS members will prepare draft reports for consideration by the full Committee.
- 18) 6:30 - 7:30 P.M. Discussion of Proposed ACRS Reports (Open)  
Preparation of proposed ACRS reports on:  
19.1) GSI-168, Equipment Qualification (REU/AS)  
19.2) Union of Concerned Scientists Report on Nuclear Plant Risk Studies (GA/MTM)  
19.3) NEI 00-02, "Industry PRA Peer Review Process Guidelines" (GA/MTM)  
19.4) Pressurized Thermal Shock Technical Bases Reevaluation Project (WJS/NFD)

**SATURDAY, OCTOBER 7, 2000, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH,  
ROCKVILLE, MARYLAND**

- 19) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (DAP/JTL)
- 20) 8:35 - 12:30 P.M. Discussion of Proposed ACRS Reports (Open) - The Committee will continue its discussion of proposed ACRS reports as noted in Item 19.
- 21) 12:30 - 1:00 P.M. Annual Report to the Commission on the NRC Safety Research Program (Open) (DAP/MME)  
Discussion of the current status of the review by the members of the topical areas previously assigned.
- 22) 1:00 - 1:30 P.M. Miscellaneous (Open) (DAP/JTL)  
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  
475<sup>th</sup> ACRS MEETING  
AUGUST 29-SEPTEMBER 1, 2000

[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 | <u>Opening Remarks by the ACRS Chairman</u><br>1. Items of Interest, dated August 29-September 1, 2000  |
| 2 | <u>Proposed Risk-Informed Revisions to 10 CFR Part 50</u><br>2. Risk-Informed Part 50 Option 2 presentation by T. Reed, NRR [Viewgraphs]<br>3. Risk-Informed 10 CFR 50.44 "Standard for Combustible Gas Control System in Light-Water-Cooled Power Reactors" presentation by RES [Viewgraphs]<br>4. Risk-Informing NRC Regulations presentation by A. Heymar, NEI [Viewgraphs]<br>5. ACRS Combustible Gas Control presentation by B. Christie, Performance Technology [Viewgraphs]<br>6. Proceedings of PSAM-3 Meeting, Crete Greece (1997) "An Assessment of the Risk-Impact of Reactor Power Upgrade for a BWR-6 MARK-III Plant [Handout] |
| 3 | <u>Causes and Significance of Design Basis Issues</u><br>7. Draft Report: "Causes and Significance of Design-Basis Issues at U.S. Nuclear Power Plants" presentation by R. Lloyd, RES [Viewgraphs]  |
| 4 | <u>Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis</u><br>8. Clarifying the Definition of Design Bases presentation by S. Magruder, NRR, and R. Bell, NEI [Viewgraphs]   |
| 5 | <u>AP1000 Standard Plant Design</u><br>9. Briefing on AP1000 Standard Plant Design presentation by J. Wilson, NRR [Viewgraphs]<br>10. Letter from Westinghouse dated 8/28/00 Subject: AP1000 Phase 2 Review   |
| 9 | <u>Performance-Based Regulatory Initiatives</u><br>11. High-Level Guidelines for Performance-Based Activities presentation by RES and ISL, Inc. [Viewgraphs]  |

12. High-Level Guidelines for Performance-Based Activities (Predecisional) Draft received by the ACRS on 8/25/00 from RES to the EDO Subject: High-Level Guidelines for Performance-Based Activities [Handout 9.1]
10. License Renewal Guidance Documents
  13. Memorandum to ACRS Members from N. Dudley, dated 8/29/2000, Subject: ACRS Review Plans for License Renewal Guidance Documents [Handout]
  14. License Renewal Generic Activities presentation by S. Lee, NRR [Viewgraphs]
11. Operating Events at Indian Point Nuclear Power Plant Unit 2
  15. Unit 2 Electrical Distribution System [diagram]
  16. Event 1: Reactor Trip and Partial Loss of Vital Power, 8/31/99; Event 2: Steam Generator Tube Failure, 2/15/00 [Viewgraphs]
16. Reconciliation of ACRS Comments and Recommendations
  17. Reconciliation of ACRS Comments and Recommendations [Handout #16.1]
17. Report of the Planning and Procedures Subcommittee
  18. Future Activities, October 5-7, 2000 [Handout 17.2]
  19. Final Draft Minutes of Planning and Procedures Subcommittee Meeting - August 28, 2000 [Handout #17.1]
18. Discussion of SGTR DPO S/C and F/C, Members with Topic & Reviewer
  20. DPO Plan [Viewgraph]
19. Annual Report to the Commission on the NRC Safety Research Program
  21. Ground Rules presentation by D. Powers, Chairman, ACRS [Viewgraphs]

## MEETING NOTEBOOK CONTENTS

### TAB

### DOCUMENTS

- 2 Activities Associated with Risk-Informing 10 CFR Part 50
  1. Table of Contents
  2. Proposed Schedule
  3. Status Report, dated August 29, 2000
  4. Draft Commission paper on risk-informing 10 CFR Part 50 (Option 3)
  5. SRM dated January 31, 2000
  6. SRM dated February 3, 2000
  7. SRM dated April 5, 2000
  8. Letter dated April 18, 2000 from Steven D. Floyd, NEI, to Thomas L. King, RES, Subject: Industry Comments on SECY-00-0086 and draft NRC report on risk-informing 10 CFR 50.44
  9. Report dated October 12, 1999, from Dana A. Powers, Chairman, ACRS, to Greta Joy Dicus, Chairman, NRC, Subject: Proposed Plans for Risk-Informing 10 CFR Part 50
  
- 3 Causes and Significance of Design-Basis Issues at U.S. Nuclear Power Plants
  11. Table of Contents
  12. Proposed Schedule
  13. Status Report
  14. Draft Report, "Causes and Significance of Design-Basis Issues at U.S. Nuclear Power Plants," dated May 2000
  
- 4 Proposed Final Regulatory Guide (DG-1093) Endorsing NEI 97-04 Document on Design Basis
  15. Table of Contents
  16. Proposed Schedule
  17. Status Report
  18. Memorandum to J. Larkins, ACRS, from D. Mathews, NRR, Subject: Final Regulatory Guide 1.xxx (DG-1093), "Guidance and Examples for Identifying 10 CFR 50.2 Design Bases," dated August 7, 2000
  19. Memorandum to C. Carpenter, NRR, from S. Magruder, NRR, Subject: Summary of July 27, 2000 Meeting with NEI on Revision to NEI 97-04 on the Definition of 10 CFR 50.2 Design Bases," dated July 31, 2000
  
- 5 Pre-Application (Phase 1) Review of the AP1000 Design
  20. Proposed Schedule
  21. Status Report
  22. Memorandum dated May 31, 2000, from M. Corietti, Westinghouse, to

Document Control Desk (Attention J. Wilson), NRR, Subject: AP1000 Pre-Application Review Items

23. Memorandum dated July 27, 2000, from S. Collins, NRR, to W. Cummins, Westinghouse, Subject: AP1000 Pre-Application Review - Phase One
  24. Memorandum dated June 21, 2000, from J. Larkins, ACRS, to W. Travers, EDO, Subject: AP1000 Pre-Application Review
- 9 Performance-Based Regulatory Initiatives
25. Table of Contents
  26. Proposed Schedule
  27. Status Report
  28. Draft Letter dated June 9, 2000, from D. Powers, ACRS, to W. Travers, EDO, Subject: Proposed High-Level Guidelines for Performance-Based Activities [Predecisional]
  29. Memorandum dated June 8, 2000, from G. Apostolakis, ACRS, to J. Sieber, ACRS, Subject: Performance-Based Activities
  30. US Nuclear Regulatory Commission, Draft Commission Paper, "High Level Guidelines for Performance-Based Activities" received 8/9/2000
- 10 License Renewal Guidance Documents
31. Table of Contents
  32. Proposed Schedule
  33. Status Report
  34. US Nuclear Regulatory Commission, Draft Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants, 4/21/2000, Table of Contents and Introduction
  35. US Nuclear Regulatory Commission, Draft Generic Aging Lessons Learned (GALL) Report, 12/6/99, Table of Contents and Introduction
  36. NEI 95-10 [Revision 2], "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," August 2000
  37. Guidance Documents on License Renewal  
[www.nrc.gov/NRC/REACTOR/LR/guidance.html](http://www.nrc.gov/NRC/REACTOR/LR/guidance.html), 5/10/2000
- 11 Operating Events at Indian Point 2
38. Table of Contents
  39. Proposed Schedule
  40. Status Report
  41. List of Related Documents
  42. Attachments (selected pages included in file)  
Reactor Trip with Complications, pages 10-56
    - LER 247/99-15, dated 9/30/99, regarding Reactor Trip, ESF Actuation, Entry into TS 3.0.1, and Notification of an Unusual Event
    - Letter, NRC to ConEd. Dated 10/19/99, transmitting AIT Inspection

Report (IR) 247/99-08, Reactor Trip with Complications. Enclosures include the AIT Charter and the Briefing Slides for the 9/27/99 Exit Meeting

- Letter, NRC to ConEd, dated 12/21/99, transmitting IR 247/99013 - Results from the Follow Up Inspection to the AIT
- Letter, NRC to ConEd, dated 1/5/00, transmitting IR 05000247/99014- Results of the Enforcement Followup Inspection to the AIT

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- LER 247/001-01, dated 3/17/00, regarding Manual Reactor Trip Following Steam Generator Tube Rupture
- Letter, NRC to ConEd, dated 4/28/00, transmitting IR 247/2000-002, NRC Augmented Inspection Team - Steam Generator Tube Failure. Enclosures include AIT Charter and Briefing Slides for the 3/29/00
- Letter, NRC to ConEd, dated 5/23/00, IP2 Agency Focus Plant Status
- NRC Information Notice 2000-09, Steam Generator Tube Failure at IP2, dated 6/28/00
- Letter, NRC to ConEd, dated 7/10/00, transmitting IR 247/2000-07 - NRC Augmented Inspection Team Follow-up, Steam Generator Tube Failure
- Letter, NRC to ConEd, dated 7/27/00, transmitting Preliminary Results of NRC Special Inspection 247/200010 - Steam Generator Tube Failure

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- 43. Table of Contents
- 44. Project Status Report
- 45. Working Copy of Minutes of August 8-9, 2000 Thermal-Hydraulic Phenomena Subcommittee Meeting dated 8/23/00
- 46. Excerpt from Minutes of March 15, 2000 Thermal Hydraulic Phenomena Subcommittee Meeting on Siemens S-RELAP5 Thermal-Hydraulic Code, dated 4/17/00.