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MARCH 1-4, 2000

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- Report on the Safety Aspects of the License Renewal Application for the Oconee Nuclear Station, Units 1, 2, and 3 (Report to Richard A. Meserve, Chairman, NRC, from Dana A. Powers, Chairman, ACRS, dated March 13, 2000)

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- Proposed Final Amendment to 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," and 10 CFR 50.73, "Licensee Event Report System" (Memorandum to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, dated March 13, 2000)

APPENDICES

MINUTES OF THE 470TH MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS MARCH 1-4, 2000 ROCKVILLE, MARYLAND

The 470th meeting of the Advisory Committee on Reactor Safeguards (ACRS) was held in Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on March 1-4, 2000. Notice of this meeting was published in the *Federal Register* on February 17, 2000 (65 FR 8211) (Appendix I0. 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 regarding the meeting.

A transcript of selected portions of the meeting was kept and is available in the NRC Public Document Room at the Gelman Building, 2120 L Street, N.W., Washington, D.C. [Copies of the transcript are available for purchase from Ann Riley & Associates, Ltd., 1025 Connecticut Avenue, N.W., Suite 1014, Washington, D.C. 20036, and on the ACRS/ACNW Web page at (www.NRC.gov/ACRS/ACNW).]

ATTENDEES

ACRS Members: Dr. Dana A. Powers (Chairman), Dr. George Apostolakis (Vice-Chairman), Mr. John Barton, Dr. Mario V. Bonaca, Dr. Thomas S. Kress, 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 1:00 p.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.

II. Development of Risk-Informed Revisions to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities" (Open)

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

Dr. George Apostolakis, Chairman of the ACRS Subcommittee on Reliability and Probabilistic Risk Assessment, introduced this topic to the Committee. He stated that the purpose of this meeting is to review the staff's framework for risk informing 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." He noted that the primary purpose of this meeting was to review the staff's plan for implementing Option 3 concerning changing specific requirements in the body of 10 CFR Part 50 and associated regulations, including possible reexamination of the design basis events and associated requirements

NRC Staff Presentation

Mr. Mark Cunningham and Ms. Mary Drouin, Office of Nuclear Regulatory Research (RES), led the discussion for the NRC staff. Mr. Alan Kuritzky, RES, provided supporting discussion. Mr. Thomas King, RES, also participated. The staff discussed the status of developing risk-informed revisions to 10 CFR Part 50, including the results of a public workshop held on February 24-25, 2000. Significant points made during the presentation were as follows:

1. The staff solicited feedback from the individual ACRS members and noted that a report or letter would not be requested from the Committee at this time.

2. In a staff requirements memorandum (SECY-99-264) dated February 3, 2000, the Commission approved the staff's proposed Option 3 approach.

3. For this meeting, the staff discussed its framework document and an example of a proposed change to specific requirements in 10 CFR 50.44 concerning combustible gas control systems. The staff's framework document addresses, in part, a number of issues important to the Committee including the following:

    - top-down goals and objectives
    - adequate protection
    - defense in depth, including the balance between prevention and mitigation and the structuralist versus the rationalist approaches

- consideration of risk using “cornerstones” of the reactor oversight process
- approaches for using quantitative goals and associated strategies for prevention and mitigation
- risk criteria using core damage frequency and large, early release frequency
- treatment of uncertainties

4. The staff’s framework also discusses the linkage of these issues to the plant design basis and consideration of safety margins. The staff plans to utilize a two-phase approach:

Phase 1: Identify and prioritize candidate design basis accidents (DBAs) and regulations, including regulatory guides and Standard Review Plan (SRP) sections, and trial implementation of candidate regulation.

Phase 2: Develop guidelines for defense in depth and safety margins, trial implementation of risk-informed 10 CFR 50.44, and trial implementation of special treatment requirements.

5. Key implementation issues include the following:

- Application of single failure criterion
- Application of quantitative goals
- Implementation of risk-informed requirements
- Consideration of uncertainties
- Worker protection

6. The staff has developed a screening process for the selection and prioritization of candidate regulations and design basis accidents for possible revision. Preliminary evaluation for 10 CFR 50.44 has begun.

Nuclear Energy Institute Presentation

Mr. Adrian Heymer of the Nuclear Energy Institute (NEI) presented brief remarks to the Committee concerning the Option 3 initiative. He stated that the NRC staff and the industry are in general agreement on many of the issues associated with making 10 CFR Part 50 risk informed. However, he stated that the industry has for a long time struggled with application of the principle of defense in depth and finds the single failure criterion confusing. He also noted that there may be some difference in the priority regarding which regulations to change first. Mr,

Heymer informed the Committee that NEI sent a letter to the NRC dated January 19, 2000, expressing agreement with the staff's overall approach and listing industry priorities for regulatory change. Several ACRS members asked to review the subject letter, and Mr. Heymer agreed to provide a copy after the meeting.

Presentation by a Concerned Citizen

Mr. Bob Christie of Performance Technology, Inc., gave a brief presentation to the Committee. He stated that there is no general agreement in the industry on the Option 3 approach, that the single-failure criterion is not needed, that he does not understand why the quantitative health objectives cannot be used to set objectives, that adequate protection is demonstrated by meeting the regulations, and that the Commission's safety goals support the fact that the industry is safe enough. He also stated that the proposed revision to 10 CFR 50.44 should be expedited in accordance with the petition for rulemaking of January 12, 2000.

Dr. Powers stated that there is a lot of ongoing work in the area of fire protection and questioned why fire protection is not proposed for consideration under Option 3. The staff stated that parallel activities are underway in the Office of Nuclear Reactor Regulation (NRR)and suggested that fire protection is being considered under Option 2 related to special treatment requirements.

Dr. Powers stated that DBAs are orthogonal to risk. He questioned why DBAs are useful and whether they should be retained. The staff stated that DBAs represent a useful concept that served the NRC well during the early years of licensing of nuclear power plants. The staff added that DBAs provided a "design to" standard and noted that some aspects (e.g., containment) would be difficult to abandon, even in risk-informed regulation. Dr. Bonaca stated that there is a need for standards against which designs are developed.

Dr. Apostolakis questioned the relationship between the Option 3 initiatives and the "cornerstones" of the revised reactor oversight process. In particular, he questioned consistency with cornerstones if DBAs are exceeded. The staff stated that they would evaluate consistency with the cornerstones for each trial initiative and noted that the key work is "limit." The staff stated that it plans to limit encroachment on the cornerstones.

Dr. Apostolakis questioned the use of quantitative goals. He stated that there will be certain classes of accidents in which only a top-level quantitative value can be met, and lower-tier values cannot be quantified. The staff acknowledged

this concern and stated that it hopes to obtain stakeholder feedback on these types of issues during the public comment period.

At the conclusion of the meeting, Dr. Apostolakis suggested, and the staff agreed to hold a Subcommittee meeting in late May 2000 with full Committee review during the ACRS meeting on June 7-9, 2000.

Conclusion

The Committee plans to continue its review of this matter during future meetings.

III. ACRS Meeting With the NRC Commissioners

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

The Committee met with the NRC Commissioners on Thursday, March 2, 2000 and discussed risk-informing 10 CFR Part 50 and technical adequacy of performance indicators used in the revised reactor oversight process. The Committee is awaiting a Staff Requirements Memorandum to find out the Committee follow-up items resulting from this meeting.

IV. Technical Components Associated With the Revised Reactor Oversight Process

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

Mr. John Barton, Chairman of the ACRS Subcommittee on Plant Operations, introduced this topic to the Committee. He stated that the Committee last met during the ACRS meeting on February 2-5, 2000, to discuss the technical components of the reactor oversight process, including the performance indicators (PIs) and the significance determination process (SDP). He noted that the Subcommittee on Plant Operations met on January 20, 2000, to discuss this matter. Mr. Barton also noted that the ACRS response to the Commission is due March 15, 2000.

NRC Staff Presentation

Mr. William Dean and Mr. Michael Johnson, NRR, led the discussion for the NRC staff. Messrs. Frank Gillespie, Alan Madison, and Gareth Parry, NRR, provided

supporting discussion. Significant points raised during the staff presentation include the following:

- The focus of the staff presentation was on the SDP and planned future activities rather than PIs, which were extensively discussed during the ACRS meeting on February 2-5, 2000.

- The SDP is used to characterize inspection findings arising from deficient licensee performance and, where appropriate, apply risk metrics similar to those used to evaluate PIs.

- The SDP evaluates risk on a plant-specific basis using the individual plant examination (IPE) and/or probabilistic risk assessment (PRA). Plant-specific worksheets were developed from the IPEs for use by the inspection staff and senior reactor analysts in evaluating the risk significance of inspection findings.

- The revised reactor oversight process continues to be a work in progress. Ongoing work includes development of a containment SDP andscreening tools for shutdown operations and external events in April 2000. The staff plans to continue to evaluate and modify the program, as appropriate.

Dr. Shack questioned the technical basis for the feasibility study that was conducted to validate the SDP. In particular, he questioned whether the process was based on the use of expert opinion. The staff affirmed that expert opinion was used in establishing criteria, particularly in areas in which risk metrics were unavailable.

Drs. Bonaca and Apostolakis questioned the rationale for making the SDP worksheets plant specific when the PIs are not. The staff stated that there are other benefits to the SDP beyond those associated with evaluating licensee performance. The staff stated that the SDP also serves as a training tool for inspectors to better understand the plant IPE/PRAs, to identify critical components important to risk, and to make risk analysis part of the inspectors' inspection planning arsenal.

Dr. Bonaca questioned why there is not a PI for the licensee's problem identification and corrective action program (CAP). The staff stated that evaluating the licensee's CAP better fits the inspection program than it does a particular PI. The staff also stated that inspecting the CAP is now 15 to 20

percent of the baseline inspection program and noted that it is evaluated on a "sampling and roll-up" basis.

Dr. Apostolakis questioned the extent to which the staff had considered the system and reliability studies performed by the former Office for Analysis and Evaluation of Operational Data. The staff acknowledged that it had not considered the subject studies and suggested that the period of analysis would not be useful in the revised reactor oversight process. Dr. Apostolakis noted that some of the studies had been updated as recently as October 1999.

Conclusion

The Committee issued a report on this matter to Chairman Meserve dated March 15, 2000.

V. Oconee Nuclear Power Plant License Renewal Application

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

Dr. Mario Bonaca, Chairman of the Plant License Renewal Subcommittee, noted that the Subcommittee visited the Oconee site on February 23, 2000, and held a Subcommittee meeting the next day in Clemson, South Carolina. He stated that representatives of the staff and Duke Energy Corporation would make presentations concerning the resolution of open and confirmatory items. He requested that the presenters comment specifically on the reliance of the license renewal process on the current licensing basis and the regulatory process, perspectives on one-time inspections, and the acceptability of inspecting buried pipes.

Mr. Greg Robison, Duke, explained how Duke evaluated10 additional events, which were suggested by the staff, to validate the scoping process used to identify structures, systems, and components (SSCs) that are within the scope of the license renewal rule. He described the Insulated Cables Aging Management Program, which is intended to manage the aging effects of heat and radiation, and moisture environments. Mr. Jeff Gilreath, Duke, presented the processes and inspections Duke developed to resolve several open items concerning the management of possible aging effects on reactor vessel internals. Mr. Robison explained the intent of one-time inspections and described the inspection program for buried piping.

The ACRS members and Duke representatives discussed the unique designs of nuclear power plants licensed before 1970, the reason for the baffle plate holes, the reason for inspecting the reactor coolant pump oil system, and the installation of the buried piping.

Mr. Joseph Sebrosky, NRR, presented a broad overview of the resolution of open and confirmatory items. He described how the principle of license renewal relies on the existing regulatory process. Mr. Sebrosky presented the staff's perspective on one-time inspections. He explained why the staff found the Duke piping inspection program acceptable for resolving the associated open item.

The ACRS members and the staff discussed the fundamental philosophy of using the current licensing basis to identify the SSCs that are within the scope of license renewal and the lessons learned from reviewing the application of an older plant.

Conclusion

The Committee issued a report on this matter to Chairman Meserve, dated March 13, 2000.

VI. Proposed Final Amendment to 10 CFR 50.72 and 50.73

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

Dr. Mario Bonaca, Acting Chairman of the Regulatory Policies and Practices Subcommittee, explained that the staff met with the NEI on February 25, 2000, to discuss the requirement to report any event or condition that required corrective action for a single cause or condition in order to ensure the ability of more than one train or channel to perform its specified function. NEI raised concerns related to this new requirement.

Mr. Dennis Allison, NRR, stated that the staff agreed with the NEI concerns. He explained that the staff has not yet decided how to proceed. Mr. John Sieber, ACRS member, stated that the problems associated with the new requirement were process issues, which involved the clarity of the new requirement.

Conclusion

The Committee decided not to review this matter further.

VII. Proposed Final Revision 3 to Regulatory Guide 1.160, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants"

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

Mr. John J. Barton, Chairman of the Subcommittee on Plant Operations, introduced this topic to the Committee. He stated that the purpose of this session was to discuss with representatives of the NRC staff the proposed final regulatory guide, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants," which was developed to supplement Regulatory Guide (RG) 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," and the revised Section 11, "Assessment of Risk Resulting From Performance of Maintenance Activities," of NUMARC 93-01.

NRC Staff Presentation

Mr. Wayne E. Scott led the discussions for the staff. He stated that since the last briefing of the ACRS, the staff identified additional changes proposed by NEI to Sections 11.3.2 and 11.3.8 of NUMARC 93-01. These changes were to address temporary alterations that are necessary for maintenance during power operations. For such temporary alterations, no review would be required under 10 CFR 50.59 unless the alterations are expected to be in effect more than 90 days during power operations.

He stated that temporary alterations, which are in effect less than 90 days, will be assessed under the requirements of 10 CFR 50.65(A)(4). To clarify the need for these assessments, the staff also proposed to add the following paragraph to the implementation section of RG 1.XXX:

> The assessment does not relieve the licensee from obligations to its license or the regulations. The exemption requirements and 10 CFR 50.90 remain in effect. The intent is to eliminate overlapping requirements for assessments that could be considered to exist under 10 CFR 50.65 (a)(4) and 10 CFR 50.59. This clarification applies to temporary alterations [that are] directly related to and support the specific maintenance activity being assessed.

Conclusion

The Committee issued a report to Chairman Meserve on this matter dated March 10, 2000.

VIII. Phenomena Identification and Ranking Table for High-Burnup Fuel

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

Dr. Dana A. Powers, Chairman of the Reactor Fuels Subcommittee, stated that using reactor fuels to higher burnups is of significant economic advantage to the power production industry as well as to society. It has been found, however, that there are substantial changes in fuel behavior as burnup exceeds about 48 Gwd/t. The NRC will currently allow licensees to use fuel to burnups of about 62 Gwd/t. Safety concerns about these changes were raised by tests of fuel integrity during reactivity insertions conducted in France, Japan, and Russia. Analyses have suggested that there may be safety issues associated with other design basis accidents, such as loss-of-coolant accidents and anticipated transients without scram in boiling-water reactors (BWRs).

The nuclear industry believes that it is even possible to take fuels to burnups higher than 62 Gwd/t, perhaps as high as 75 Gwd/t. However, the NRC has indicated that the burden will be on the industry to provide data for burnups higher than 62 Gwd/t.

The ACRS has previously suggested that RES should develop technically defensible information requirements, including requirements for experimental data to validate analyses. RES has undertaken a Phenomena Identification and Ranking Table (PIRT) process using an impressive array of experts from around the world to define these requirements to ensure safe fuel performance at high levels of burnup.

Dr. Ralph Meyer, RES, stated that RES is developing a PIRT to identify and rank the phenomena occurring during selected transient and accident scenarios in both pressurized-water reactors (PWRs) and BWRs containing high-burnup fuels. RES has selected a panel of 22 experts for the PIRT process.

Dr. Meyer noted that the PIRT provides a structured way to obtain a technical understanding from elicitation of technical opinions from the experts. The PIRT phenomena identified by the expert panel were grouped into four categories: (1)

plant transient analysis, (2) experimental testing, (3) transient fuel rod analysis, and (4) mechanical properties measurement. The importance of each phenomenon was judged relative to a primary evaluation criterion, namely, the impact of the phenomenon on substantial fuel dispersal and substantial flow blockages, either singly or in combination.

For the PWR and BWR PIRTs, the RES staff has selected the Three Mile Island (TMI) Unit 1 plant and the LaSalle plant, respectively.

Conclusion

The ACRS will continue to follow up on this matter with the NRC staff.

IX. Proposed Resolution of Generic Safety Issue B-17, "Criteria for Safety Related Operator Actions"

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

Dr. Seale, Cognizant ACRS Member, introduced this topic to the Committee. He noted that Generic Safety Issue (GI) B-17 and GI-27 are being addressed as part of the NRC's drive to resolve generic issues on an expedited basis. Both issues have been extant for some time. Dr. Seale noted that in November 1995, the staff proposed to close out GI B-17 by reference to an American National Standards Institute/American Nuclear Society standard. The Committee took strong exception to the use of this standard. The principal concern was a lack of adequate technical information to support its use; there was also concern that the supporting data were being held as proprietary and were not available to either the staff or the ACRS. Subsequently, the staff withdrew the use of this standard and is now taking another approach. Dr. Seale asked that the staff discuss any plans for future use of the above-noted ANSI/ANS standard.

NRC Staff Presentation

Mr. J. Persensky, RES, discussed the history, description, and justification for closeout of GIs B-17 and 27. The staff argument is that the regulatory actions that have been implemented since the 1979 TMI accident (GI B-17 was formulated in 1978), provide adequate grounds for closing GIs B-17 and 27 (GI 27 was subsumed into GI B-17). These regulatory actions have included enhanced operator training and licensing requirements, including use of plant-specific simulators; improved training based on the Systems Approach to

Training; establishment of minimum plant staffing levels; use of symptom-based emergency operating procedures; and completion of plant individual plant Evaluations. The argument is also made that any new or revised regulatory activities to address this issue (i.e., automation of human actions) would not be cost-effective or substantially increase public health and safety, given the existing regulations. Mr. Persensky noted that the ACRS concurred with this last issue in memorandum dated September 12, 1995.

Dr. Wallis asked questions relating to assurance that human error by the operators is addressed by the NRC. Mr. Persensky indicated that the agency and the industry evaluate this issue on a continuing basis. Mr. Sieber said that the Shift Technical Advisor worked on operating shifts in an attempt to counter operator errors during transient events. In response to an issue raised by Dr. Bonaca, Mr. Persensky noted that in response to licensee amendment requests to revert from automatic to manual actions, NRR has asked RES to develop risk-informed guidance for review of these amendments. Draft guidance under staff review would require that site-specific analyses be performed, and ANSI/ANS-58.8-1994 is cited as a source for checking site-specific data. Drs. Powers and Seale noted the Committee's concerns about the use of this ANSI/ANS guidance.

Conclusion

The Committee issued a report to the Executive Director for Operations (EDO), dated March 13, 2000, on this matter.

X. Proprosed Revision to the Commission's Safety Goal Policy Statement

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

The Committee continued its discussions on the NRC staff's proposed revision of the Commission's Safety Goal Policy Statement (SGPS) for reactors. During this meeting, the Committee discussed specific proposals relevant to risk informing of the SGPS.

Conclusion

The Committee will continue its discussion of this matter during its April 2000 meeting.

XI. Executive Session (Open)

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

A. Reconciliation of ACRS Comments and Recommendations

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

No EDO responses were available for reconciliation during the March 2000 meeting.

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 February 29, 2000. The following items were discussed:

— Review of the Member Assignments and Priorities for ACRS Reports and Letters for the March 2000 ACRS Meeting

Member assignments and priorities for ACRS reports and letters for the March 2000 ACRS meeting were discussed. Reports and letters that would benefit from additional consideration at a future ACRS meeting were also discussed.

— Anticipated Workload of ACRS Members

The anticipated workload of the ACRS members through May 2000 was discussed. The objectives were (1) to review the reasons for the scheduling of each activity and the expected work product and to make changes, as appropriate; (2) to manage the members' workload for these meetings; and (3) to plan and schedule items for ACRS discussion of topical and emerging issues.

— Status of Selecting Candidates for Potential ACRS Membership

Three of the four best qualified candidates for ACRS membership were scheduled to be interviewed by ACRS Members during the March 2000 ACRS meeting.

— Meeting With Members of the German Reactor Safety Committee

On March 13, 2000, Lothae Hahn (Chairman of the German Reactor Safety Committee [RSK]), Edmund Kersting (Vice Chairman of the RSK), and Renzo Candeli (Executive Director of the RSK office) met with D. Powers, G. Apostolakis, M. Bonaca, T. Kress, G. Wallis, and J. Larkins to discuss several topics of mutual interest. The meeting was held at the Massachusetts Institute of Technology (MIT) and the suggested topics included Risk-Informed, Performance-Based Regulation; Generic Safety Issues; Decommissioning and Emergency Responses; and Reactor Regulatory Research.

— Change in NRC Travel Regulations Beginning March 1, 2000

A copy of the NRC Yellow Announcement, “Mandatory Usage of the Government-Sponsored Charge Card for Travel,” dated February 8, 2000, was distributed to each member for his information.

— Compensation of ACRS Members

In a memorandum dated February 8, 2000, the ACRS Executive Director requested the NRC Chairman to continue the ACRS members’ compensation at a rate equivalent to Executive Level IV.

— Proposed Rulemaking to Revise Federal Advisory Committee Act Regulations

The General Services Administration (GSA) is revising Federal Property Management Regulations’ coverage on Federal Advisory Committee management. GSA is revising the implementation regulations for the Federal Advisory Committee Act (FACA) to make it consistent with legislative changes, shifts in Federal policy,

and decisions issued by the Supreme Court and other Federal courts. This is the second time the NRC has commented on proposed changes to FACA, the first being on the advance notice of proposed rulemaking announced on June 10, 1997. The Office of the General Counsel discussed proposed agency comments with the ACRS/ACNW office and others before seeking the Commission's approval and forwarded comments to GSA.

- Member Issues

  – Recommendation From Gus Cronenberg on NRC Staff Reviews of Power Uprates

    Senior ACRS Fellow Gus Cronenberg has, in a memorandum dated February 7, 2000, expressed concern that the recommendation from the Maine Yankee lessons learned effort that there should be more comprehensive and consistent reviews of power uprate applications that are not being followed. He sees continued inconsistency in the reviews and is concerned that they are not

    - included in the safety evaluation report specifications on how the reviews were accomplished (a theme like that of Graham Wallis)
    - included in the acceptance criteria for the conclusions reached, or
    - included in the staff analyses of thermal hydraulics and core physics

    The staff pleads that higher priority activities have kept it from formulating an SRP for power uprates. The Planning and Procedures Subcommittee should prepare a response. The Committee needs to give some thought to the following:

    - Are we at all concerned about the potential synergism suggested in Cronenberg's report?

- Is any action taken by the ACRS in these matters interfering in the management of the agency?

— Meeting With NRC's EDO

The Planning and Procedures Subcommittee discussed a date and agenda for a meeting with the NRC's EDO on matters of concern. This meeting would include a discussion of administrative and procedural matters and, as such, would not be a public meeting.

— Meeting With Industry Representatives

An action coming out of the ACRS Calendar Year 2000 Retreat was the recommendation for a meeting with industry representatives (NEI, Utility Management, and the Institute of Power Operations). The Planning and Procedures Subcommittee will establish a date and agenda for this meeting and decide whether to use a subcommittee format or introduce it as part of a full Committee meeting. This meeting is part of a broader recommendation for enhanced ACRS and industry interactions, including members participating in NEI topical meetings and ANS activities.

C. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 471st ACRS Meeting on April 5-7, 2000.

The 470th ACRS meeting was adjourned at 12:00 p.m. on March 4, 2000.

APPENDIX III: MEETING ATTENDEES

470TH ACRS MEETING
MARCH 1-4, 2000

NRC STAFF (March 1, 2000)
A. Levin, OCM/RAM
T. Hiltz, OCM/GJD
W. Ott, OEDO
S. West, NRR
T. Reed, NRR
S. Wong, NRR
M. Drouin, RES
S. Rubin, RES
J. Murphy, RES

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC
R. Huston, Licensing Support Services
B. Christie, Performance Technology
A. Keymer, NEI
E. Lyman, Nuclear Control Institute

NRC STAFF (March 2, 2000)
C. Beardslee, OCM/GJD
R. Jasinski, OPA
F. Gillespie, NRR
B. Dean, NRR
A. Madison, NRR
D. Coe, NRR
T. Frye, NRR
G. Parry, NRR
A. Spector, NRR
S. Wong, NRR
D. Hickman, NRR
J. Sebrosky, NRR
J. Davis, NRR
D. LaBarge, NRR
S. Monarque, NRR
P. Shemanski, NRR
A. Hiser, NRR
J. Fair, NRR
D. Thatcher, NRR
S. Coffin, NRR

G. Hubbard, NRR
B. Elliot, NRR
J. Peralta, NRR
G. Bagchi, NRR
T. Eaton, NRR
S. Lee, NRR
D. Mathews, NRR
G. Gallett, NRR
C. Grimes, NRR
E. McKenna, NRR
W. Scott, NRR
T. Quay, NRR
J. Vora, RES
J. Wilcox, NRR
D. Allison, NRR

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC
R. Huston, Licensing Support Services
G. Robison, Duke Energy
J. Fisicaro, Duke Energy
J. Gilreath, Duke Energy
L. Connor, DSA

NRC STAFF (March 3, 2000)
R. Meyer, RES
H. Scott, RES
R. Lee, RES
S. Basu, RES
E. Rossi, RES
H. Vandermolen, RES
J. Kramer, RES
J. Persensky, RES
J. Rosenthal, RES
P. Lewis, RES
N. Kadambi, RES
R. Caruso, NRR
M. Chatterton, NRR
J. Bongarra, NRR
G. Galleti, NRR
R. Jasinski, OPA

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC
F. Saba, NUSIS

APPENDIX V
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE
470th ACRS MEETING
MARCH 1-4, 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	Opening Remarks by the ACRS Chairman
	1. Items of Interest, dated March 1-4, 2000
2	Development of Risk-Informed Revisions 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities"
	2. Risk-Informing the Technical Requirements in 10 CFR 50, presentation by Office of Research [Viewgraphs]
	II Risk-Informing the Technical Requirements of 10 CFR 50, presentation by B. Christie, Performance Technology
8	Technical Components Associated with the Revised Reactor Oversight Process
	3. Revised Reactor Oversight Process, Pilot Program Results and Lessons Learned, presentation by W. Dean, A. Madison, G. Parry, NRR [Viewgraphs]
9	Oconee Nuclear Power Plant License Renewal Application
	4. Oconee License Renewal Project, presentation by Duke Power [Viewgraphs]
	5. Oconee Nuclear Station License Renewal Application, presentation by NRR [Viewgraphs]
11	Proposed Final Revision 3 to Regulatory Guide 1.160, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants"
	6. Maintenance Rule Guidance, presentation by NRR [Viewgraphs]
15	Phenomena Identification and Ranking Table (PIRT) for High Burnup Fuel
	8. Status of RES Activities on Phenomena Identification and Ranking Tables (PIRTs) for High Burnup Fuel, presentation by R. Meyer, RES

16 Proposed Resolution of Generic Safety Issue B-17, "Criteria for Safety Related Operator Actions"

9. Resolution of Generic Issues B-17, "Criteria for Safety-Related Operator Actions" and GI-27, "Manual vs. Automatic Actions," presentation by RES [Viewgraphs]

17 Report of the Planning and Procedures Subcommittee

10. Final Draft Minutes of Planning and Procedures Subcommittee Meeting - February 29, 2000 [Handout #17.1]

18 Future ACRS Activities

11. Future ACRS Activities - 470th ACRS Meeting, April 5-7, 2000 [Handout #18-1]

MEETING NOTEBOOK CONTENTS

TAB	DOCUMENTS
Model	
2	Development of Risk-Informed Revisions to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities"
	1. Table of Contents
	2. Proposed Schedule
	3. Project Status Report, dated March 1, 2000
	8. Staff Requirements Memorandum dated February 3, 2000, concerning SECY-99-264, Proposed Staff Plan for Risk-Informing Technical Requirements of 10 CFR Part 50
	9. Staff Requirements Memorandum dated January 31, 2000, concerning SECY-99-256, Rulemaking Plan for Risk-Informing Special Treatment Requirements.
	10. Report dated October 12, 1999, from Dana A. Powers, Chairman, ACRS to Greta Joy Dicus, Chairman, NRC, Subject: Proposed Plans for Developing Risk-Informed Revisions to 10 CFR Part 50
	11. Framework for Risk-Informing Regulations, Draft for Public Comment, Revision 1.0, dated February 10, 2000
	12. Risk-Informing 10 CFR 50.44, "Standards for Combustible Gas Control System in Light Water-Cooled Power Reactors," draft for Public Comment, Revision 1.0, dated February 11, 2000
8	Technical Components Associated with the Revised Reactor Oversight Process
	13. Table of Contents
	14. Proposed Schedule
	15. Status Report dated March 2, 2000
	16. E-mail messages from ACRS Members: Kress, Shack, and Bonaca (Predecisional)
	17. Note dated January 27, 2000, from John J. Barton, ACRS to Michael Johnson, NRR, Subject: Issues and questions for February 3 ACRS meeting
	18. SRM dated December 17, 1999, Subject: Meeting with the ACRS
	19. Letter dated November 23, 1999, from Samuel Collins, Director, NRR, Subject: Request for review of revised reactor oversight process
	20. SRM dated June 18, 1999, Subject: SECY-99-007 and SECY-99-007A
	21. Letter dated June 10, 1999, from Dana A. Powers, Chairman, ACRS, Subject: Inspection/assessment programs, Pis & performance-based initiatives
	22. Letter dated August 9, 1999, from William D. Travers, EDO, NRC, to Dana A. Powers, Chairman, ACRS, Subject: EDO response to ACRS letter

23. Report dated February 23, 1999, from Dana A. Powers, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Proposed Improvements to the NRC Inspection and Assessment Programs

9 Oconee Nuclear Power Plant License Renewal Application

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27. Letter dated September 13, 1999, from Dana A. Powers, Chairman, ACRS, to William D. Travers, Executive Director for Operations, NRC, Subject: Interim Letter Related to the License Renewal of Oconee Nuclear
28. Note dated February 3, 2000, from Joseph M. Sebrosky, NRR, to Noel Dudley, ACRS, Subject: Oconee Nuclear Station License Renewal Safety Evaluation Report

10 Proposed Final Amendment to 10 CFR 50.72 and 50.73

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31. Status Report dated March 2, 2000
32. Selected slides from the staff presentation to the ACRS on February 3, 2000, Modification of Event Reporting Requirements, 10 CFR 50.72 and 50.73
33. Selected slides from the Nuclear Energy Institute presentation to the ACRS on February 3, 2000, Licensee Event Reporting System

11 Proposed Final Revision 3 to Regulatory Guide 1.160 (DG-1082), "Assessing and Maintaining Risk Before Maintenance Activities at Nuclear Power Plants"

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35. Proposed Schedule
36. Status Report dated March 2, 2000
37. Memorandum to John T. Larkins, Executive Director, ACRS, from Theodore R. Quay, Chief, Quality Assurance, Vendor Inspection, Maintenance and Allegations Branch, NRR, Subject: Request for Review of Regulatory Guidance for 10 CFR 50.65, The Maintenance Rule, dated February 16, 2000

15 Phenomena Identification and Ranking Table (PIRT) for High Burnup Fuel

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39. Proposed Schedule
40. Status Report dated March 3, 2000
41. ACRS letter dated March 24, 1999
42. Summary from Dr. Powers
43. Chart for BWR heat transport paths

16 Proposed Resolution of Generic Issues B-17 and 27

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41. Presentation Schedule
42. Project Status Report dated March 3, 2000
43. Letter to J. T. Larkins from C. E. Rossi, Subject: Proposed Resolution of Generic Issue B-17, “Criteria for Safety-Related Operator Actions,” and GI 27, “Manual vs Automated Actions”
44. Letter to J. M. Taylor, EDO, from T. S. Kress, Chairman, ACRS, “Proposed Final Regulatory Guide 1.164, ‘Time Response Design Criteria for Safety-Related Operator Actions’, to Resolve Generic Safety Issue B-17"
45. Excerpt from Minutes of 426th ACRS Meeting, “Proposed Final Regulatory Guide 1.164, ‘Time Response Design Criteria for Safety-Related Operator Actions”
46. American National Standard: ANSI/ANS 58.8-1994, “Time Response Design Criteria for Safety-Related Operator Actions,” dated August 23, 1994