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SEPTEMBER 12-13, 1996

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MINUTES OF THE FOUR HUNDRED THIRTY-FOURTH MEETING OF THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
SEPTEMBER 12-13, 1996
ROCKVILLE, MARYLAND

The 434th meeting of the Advisory Committee on Reactor Safeguards was held at Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on September 12-13, 1996. The purpose of this meeting was to discuss and take appropriate action on the items listed in the attached agenda. The meeting was open to public attendance. There were no written statements nor requests for time to make oral statements from members of the public regarding the meeting.

A transcript of selected portions of the meeting was kept and is available in the NRC Public Document Room at the Gelman Building, 2120 L Street, N.W., Washington, D.C. [Copies of the transcript are available for purchase from Neal R. Gross and Co., Inc., 1323 Rhode Island Avenue, N.W., Washington, D.C. 20005.]

ATTENDEES

ACRS Members: Dr. Thomas S. Kress (Chairman), Dr. Robert L. Seale (Vice-Chairman), Dr. George Apostolakis, Mr. John Barton, Dr. Ivan Catton, Dr. Mario H. Fontana, Dr. Don W. Miller, Dr. Dana A. Powers, and Dr. William J. Shack. [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. Thomas S. Kress, Committee Chairman, convened the meeting at 8:30 a.m. and reviewed the schedule for the meeting. He announced that the NRC now has a full complement of five Commissioners and that the Director of the Office of Nuclear Reactor Regulation, Mr. William Russell, was retiring.

II. Adequacy of the Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accidents (Open)

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

Introduction

Dr. Mario Fontana, ACRS Severe Accidents Subcommittee Chairman, stated that the key issue under discussion concerned the capability of the NRC SCDAP/RELAP5 code to calculate steam generator tube temperatures during a specific severe accident event. He noted

that evaluating the event, which may result in core damage and containment bypass, is very important.

Dr. Ivan Catton, ACRS, stated that the NRC code could be used to evaluate the event and was well scaled to the Westinghouse 1/7-scale test data. Dr. Catton stated that determining how to use the code phenomenological behavior results to develop a risk perspective is the next step.

NRC Staff Presentation

Introduction: Mr. Wayne Hodges, RES, requested that the ACRS issue a report clarifying the June 28, 1996, ACRS report to Chairman Jackson, which stated that the NRC codes are not capable of assessing the specific severe accident event. Mr. Hodges asserted that the staff would explain why the statement was incorrect. He noted that the largest uncertainties associated with steam generator tube failures may come from other parts of the problem not related to thermal hydraulic calculations. Mr. Charles Tinkler, RES, explained how the SCDAP/RELAP5 code supports the steam generator tube integrity rulemaking.

SCDAP/RELAP5 Code Modeling: Mr. Tinkler explained how the observed phenomena from the Westinghouse 1/7-scale tests were used to develop the SCDAP/RELAP5 code. He described the code and the modeling assumptions. The Committee and the staff discussed countercurrent hot-leg flows, steam generator inlet-plenum mixing, and upper reactor vessel plenum temperatures. They discussed the adequacy of scaling the Westinghouse test data, the effects of reduced flow through the steam generator tubes, the method for dealing with uncertainties, the deposition of aerosols in the hot leg, and the split fractions used in the nodilization of the steam generator inlet plenum.

Fission Product Deposition: Mr. Tinkler explained how the VICTORIA code was used to confirm that fission product transport and disposition have a minimal effect on steam generator tube temperatures. The Committee and the staff discussed the effects of potential localized aerosol deposition, the consequences of using thermal hydraulic code results as inputs to the VICTORIA code, and the need for a test program to validate the VICTORIA code.

Benchmarking of the Code: Mr. Tinkler explained how Westinghouse 1/7-scale test data and Surry sensitivity analysis results were used to benchmark the SCDAP/RELAP5 code. He noted that the sensitivity analysis results indicate that individual parameters had only a marginal effect on the surge-line and hot-leg failure times. The Committee and the staff discussed the benchmarking uncertainties associated with the test geometry, countercurrent hot-leg flow, steam generator inlet plenum mixing, and the boundary

condition temperatures. They also discussed the uncertainties associated with the lack of evaluations, such as convergence testing of COMMIX code results, benchmarking of the SCDAP/RELAP5 code to transient test data, and a test data error analysis.

Preliminary Results: Mr. Tinkler provided the preliminary results of the Surry sensitivity analyses. He stated that the analyses indicate that individual independent variables have a minimal impact on the calculated peak average steam generator tube temperatures. Mr. Tinkler concluded that if pressurizer surge-line and hot-leg failures are ignored and a steam generator secondary atmospheric dump valve fails open, steam generator tube rupture is calculated to occur about 20 minutes after the first predicted pressure boundary failure.

The Committee and the staff discussed the differences between the recirculation ratios calculated by the staff and industry, the assumed hot-leg piping circumferential temperatures, and the time constants for temperature increases of the hot gas, hot-leg piping, and steam generator tubes.

Independent Peer Review: Mr. Tinkler noted that three independent peer reviewers commented that the Westinghouse 1/7-scale test data are good and that the SCDAP/RELAP5 code is adequate for calculating natural circulation under severe accident conditions. He presented the peer reviewers' recommendations and the resultant staff actions, which included improving the modeling approach, establishing figures of merit, and conducting additional sensitivity analyses. The Committee and the staff discussed the peer reviewer recommendations and how code sensitivity analysis results can be used to quantify uncertainties.

Conclusion: Mr. Hodges reiterated that the NRC codes were appropriately modeled and that the staff was conducting additional analyses in response to discussions with the ACRS. Mr. Tinkler noted that the staff continues to look at multiple sensitivity studies, ranges of the data, and 95/5% confidence limits. He concluded that the largest influence on the code results was whether or not the secondary side is depressurized.

ACRS Discussion

Dr. Novak Zuber, ACRS Consultant, stated that the countercurrent hot-leg flows and inlet-plenum mixing ratios were important parameters that were not calculated by the SCDAP/RELAP5 code nor compared to transient test data. Based on the presented information, Dr. Zuber stated that he was not convinced that the code was tuned to properly scaled test data, especially for the hot-leg flows. He suggested that the staff develop a road map for

determining code uncertainties. Dr. Catton presented an approach for developing a response surface for a similar scenario.

Dr. Powers suggested that the staff review the safety significance of a spontaneous steam generator tube rupture based on the expected deposition of aerosols and particles inside primary and secondary components. Mr. Charles Ader stated that the staff had no plans to reevaluate the spontaneous tube rupture since the consequences of the event were below the safety goals.

Conclusion

The Committee planned to complete a report on this issue during the October 9-12, 1996 ACRS meeting.

III. Indian Point Unit 3 (Open)

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

Mr. John Barton, Chairman of the Plant Operations Subcommittee, introduced the topic to the Committee. He stated that the ACRS normally hears from licensees whose plants have been shut down for more than a year. He noted that the licensee, the New York Power Authority (NYPA), voluntarily shut down Indian Point Unit 3 (IP-3) in February 1993, completed an extensive improvement program and restarted the unit in June 1995, and then had an extended shutdown from September 1995 through April 1996. He also noted that IP-3 remains on the NRC "Watchlist" of problem plants as a Category 2 facility (allowed to operate, but weakness warrants increased NRC attention).

Mr. Barton stated that this was an informational briefing regarding the resolution of issues that led to the initial shutdown of IP-3 and the status of resolution of new issues which emerged after the restart of the plant.

NYPA Presentation

Mr. William J. Cahill, the Chief Nuclear Officer for NYPA, introduced representatives of the NYPA/IP-3 staff and led the discussions for the licensee. Mr. Harry Salmon, Jr., Vice President-Nuclear Operations, provided an overview of the NYPA/IP-3 organization, a chronology of the events and performance at the site, a summary of the issues related to IP-3 being on the NRC Watchlist, and a review of the corrective action programs, self-assessments and improvements. Mr. Marc Pearson, IP-3 Operations Manager, reviewed the key problem areas following restart and the improvements made to strengthen the operations organization. Mr. Robert

J. Barrett, IP-3 Plant Manager, reviewed the Systematic Assessment of Licensee Performance history, including the specific issues within each functional area. He summarized five principal improvement areas: accountability, materiel condition, teamwork, conservative operations, and communications. The licensee highlighted the following significant points in their presentation:

- There was an initial period of licensee denial with regard to declining performance.
- Past improvement programs were too broad and labor intensive (i.e., trending and tracking) to effectively manage improvement.
- The plant operations organization was not always fully in charge of plant activities. At times, the maintenance organization set the priorities and schedule.
- Some performance problems resulted from the plant's "customized" Technical Specifications. The licensee stated that they plan to convert to the improved Standard Technical Specifications.
- Risk significant activities are now reviewed twice daily by the Plant Leadership Team.
- The key to success is ownership and accountability.

The Committee questioned the effectiveness of past licensee improvement programs. Dr. Powers asked if the difference from the earlier improvement programs was a more thorough root cause analysis. The licensee stated that too much emphasis had been placed on trending data and not enough on setting high standards, holding people accountable, and taking steps to improve weak management skills. Dr. Apostolakis questioned the licensee's meaning of weak management skills. The licensee stated that there was a need to improve the competence of staff personnel and teamwork.

Mr. Barton questioned how the licensee reinforces procedural compliance and what they are doing differently now. The licensee replied that significant actions have been taken to improve the quality of procedures and to reinforce the importance of properly implementing them. The licensee stated that NYPA had not been effectively using the plant safety review committee and that organizational communications had been generally poor. The licensee also stated that personnel are expected to initiate corrective actions (i.e., appropriate changes) when problems arise during procedural use. Mr. Barton asked how the licensee assesses

the effectiveness of corrective actions. The licensee stated that best measure or proof of effectiveness was the absence of similar events or recurrence.

The Committee discussed the licensee's programs for work control and engineering. Mr. Barton asked how the licensee managed their maintenance and engineering backlogs. He asked specific questions regarding the data base, prioritization, and estimates of work-off-rates. The licensee described their programs and methods of controlling work but emphasized the importance of having superior people who make the right decisions. Dr. Seale questioned who in the licensee's organization had ownership of the plant design bases. The licensee stated that engineering owned the design bases but acknowledged that there had been significant problems in this area especially in communication with the plant operations organization.

At the conclusion of the meeting, Mr. Barton asked the licensee what failed (i.e., licensee, industry support organizations, NRC, etc.). The licensee stated that it was a slow deterioration that went unnoticed for a period of time. The skills, quality of work, and attitudes of people lacked teamwork and openness in communication.

Conclusion

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

IV. Meeting with the Director of the NRC Office of Nuclear Regulatory Research (RES) (Open)

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

Dr. Thomas Kress, ACRS Chairman, welcomed Dr. David Morrison, Director of the Office of Nuclear Regulatory Research (RES). Dr. Kress noted that this briefing was part of the periodic briefings with the NRC Office Directors to discuss items of current interest.

Dr. Morrison briefly discussed the challenges facing RES, such as budget reduction and maintaining adequate expertise to support the NRC regulatory development. He indicated that the current emphasis is on increased international collaboration.

In response to the Staff Requirements Memorandum (SRM) in which the Commission requested "that the NSRRC [Nuclear Safety Research Review Committee] coordinate its activities with those of the ACRS in areas of joint interest to ensure that the activities are

supportive and complementary and not duplicative," Dr. Morrison and Dr. Boulette (NSRRC Chairman) suggested a cooperative effort as follows:

- ACRS and NSRRC Subcommittees hold one joint meeting per year,
- ACRS Subcommittee Chairman participate in the discussions of the NSRRC full Committee,
- NSRRC Chairman attend one full ACRS Committee meeting per year and highlight NSRRC activities,
- ACRS Chairman participate in one NSRRC meeting per year to highlight regulatory issues, and
- NSRRC Chairman and Subcommittee Chairmen be responsible for identifying ACRS regulatory concerns/issues for the full NSRRC Committee based upon their review of ACRS letters and participation in joint meetings.

Currently, there is a strategic shift in RES performance to emphasize the following:

- Improve staff capability to perform analytical research previously contracted by establishing uniform standards for proficiency and performance. This requires individual development plans or management-directed training for all staff members. In addition, a seminar program has been initiated to raise awareness of current research and to stimulate innovation.
- Update computing capabilities by providing more powerful workstations for staff to run analytical codes and to have collaborative computing testbeds.
- Integrated international reactor safety research.

The desired goals for research programs in the area of thermal-hydraulics are to maintain a high level of expertise, to maintain experimental facilities, to conduct experiments for code validation and for better understanding of thermal-hydraulic phenomena, and to develop and maintain in-house capabilities. Containment feedback and kinetic capabilities are required with a thermal-hydraulic code capable of performing accident and transient analysis for operating light water reactors as well as advanced passive reactors. One code is preferable, so all staff members can be knowledgeable users. The CATHARE code will be adopted to check results.

Dr. Morrison outlined some of the new international research initiatives, such as:

- Nondestructive examination - develop new examination techniques for reactor vessel embrittlement
- Probabilistic risk assessment (PRA) - share research results and experiences related to the application of PRA
- Steam generator tube integrity - share available data, results and correlation models to improve the assessment of steam generator tube integrity
- Thermal-hydraulic code development - improve analysis capabilities through consolidation of codes and assessment of new code packages
- High-burnup fuels - increase cooperative efforts, especially with Japan and France, on behavior of high-burnup fuels in reactivity insertion and loss-of-coolant accident conditions.

Other considerations in setting research priorities are fire methods development, and general regulatory guidance for PRA standards. Research also considered the expansion of NUREG-1150 PRAs to include shutdown modes and external events. However, Dr. Morrison noted that the cost of completion of the NUREG-1150 "matrix" is very high and, based on current information, completing the "matrix" does not appear to be a cost-effective approach.

Dr. Morrison submitted informational charts that describe the research programs for reactor aging; reactor structural performance; PRA; thermal-hydraulics; control, instrumentation, and human factors; severe accidents; reactor regulation development; nuclear materials regulation development; radionuclide transport and decommissioning; and information technology, educational grants, and international activities.

Conclusion

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

V. Loss of Feedwater Event at Arkansas Nuclear One Unit 1 (Open)

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

Introduction

Mr. John Barton, Chairman of the Plant Operations Subcommittee, introduced the topic to the Committee. Mr. Barton stated that the purpose of this presentation was to brief the Committee on a loss-of-feedwater event at Arkansas Nuclear One Unit 1 that occurred on May 19, 1996. The primary focus of this briefing was on the Augmented Inspection Team (AIT) findings.

NRR Presentation

Mr. Edward Goodwin, Acting Branch Chief, Events Assessment and Generic Communications Branch, NRR, introduced the NRR staff and Mr. Terrence Reis of Region IV. Mr. Reis led the discussions and presented the results of the AIT inspection.

Prior to the initiation of the event, the plant was operating at 100 percent power. On May 19, 1996, a malfunction in the feedwater control circuitry caused a prompt reduction in the speed and corresponding output of main feed pump A, resulting in a reactor trip on high pressure. As designed during the speed reduction, the plant's integrated control system demanded an increase in flow from main feedwater pump A. Feedwater pump A responded to the increased demand by increasing the speed. Six of the eight main steam safety valves on steam header B opened as designed on the reactor trip. However, one valve failed to close, and the operators, in accordance with the procedures, isolated Once-Through Steam Generator (OTSG) B and let it boil dry. This action resulted in the declaration of an unusual event.

Following the reactor trip, normal feedwater was lost because of further feedwater control deficiencies. Emergency feedwater actuated as designed and provided a decay heat removal path through OTSG A and the condenser. Shortly thereafter, the condenser became unavailable due to an absence of gland sealing steam and decay heat removal proceeded through the atmospheric dump valves.

The AIT found that the most probable cause of the initiating event was the erratic behavior of main feedwater pump A due to a degradation in the 24-volt power supplies to the hydraulic valves that control main feedwater pump speed. The degraded voltage was caused by a short to ground on a digital speed sensor that was common to the power supplies.

Conclusion

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

X. EXECUTIVE SESSION (Open)

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

A. Reconciliation of ACRS Comments and Recommendations

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

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

EDO letter dated September 5, 1996, responding to the ACRS report dated August 15, 1996, concerning the Design Changes Proposed by GENE Relating to the Certification of the U.S. Advanced Boiling Water Reactor Design.

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

EDO letter dated September 5, 1996, responding to the ACRS letter dated August 14, 1996, concerning Design Changes Proposed by ASEA Brown Boveri-CE (ABB-CE) Related to the Certification of the System 80+ Design.

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

EDO letter dated September 6, 1996, responding to the ACRS letter dated August 15, 1996, concerning Risk-Informed, Performance-Based Regulation and Related Matters.

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

An e-mail response from the NRC staff dated August 26, 1996, responding to ACRS comments and recommendations included in the ACRS report dated June 5, 1996, concerning the Implementation of the Regulatory Review Group Recommendations.

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

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

The Committee heard a report from Dr. Kress on the Planning and Procedures Subcommittee meeting held on September 11, 1996. The following items were discussed:

1. ETHICS TRAINING

The annual ethics training scheduled for the September 1996 ACRS meeting has been postponed to the October 1996 ACRS meeting as requested by the Office of the General Counsel (OGC). Representatives of OGC and the Division of Contracts intend to discuss the ethics requirements associated with the use of NRC-supplied rental offices and performing contract work by ACRS members. Additionally, ACRS members were reminded of potential impact of exceeding the 130-day limit for Special Government Employees (memo from C. Harris to ACRS Members dated August 21, 1996).

RECOMMENDATION

The Subcommittee recommended that those members who have questions regarding the use of NRC-supplied rental offices and performing contract work raise them during this session at the October meeting.

2. CONTRACTING BY ACRS MEMBERS

The members are aware that they are required to submit financial disclosure forms to OGC annually for review. These forms go directly to OGC and are not reviewed by the ACRS/ACNW Office.

Based on its review, OGC makes a conflict-of-interest determination, specifying that a member cannot advise the ACRS on matters associated with certain organizations in which the member has a financial interest either through a contract or employment. The usual practice by OGC has been to hold members in conflict with all of the work performed by these organizations and not just the narrow areas in which the member works or has a contract.

Contract work that a member performs as a salaried employee of an organization such as a university normally only causes a member to be in conflict with the review of the work that was done under that contract and not with all matters directly affecting the company that paid for the work.

The ACRS staff engineers rely not only on the OGC determination but also on updated information provided by

the members to determine the conflict-of-interest status for each Subcommittee and full Committee meeting. Consequently, it is very important for the members to keep the ACRS Office apprised of new contract work which involves matters being or expected to be discussed by the ACRS.

RECOMMENDATION

The Subcommittee recommended that Members keep the ACRS office apprised of their contract work.

3. MEMBERS' ATTENDANCE AT NRC-SPONSORED MEETINGS

Currently, the members are not required to fill out the "ACRS Special Travel Endorsement Form" to get the full Committee approval to attend NRC-sponsored meetings. It is recommended that those who plan to attend NRC-sponsored meetings:

- Fill out the ACRS Special Travel Endorsement Form to keep the Committee informed of the topics to be discussed at the meeting and to help the ACRS Office allocate necessary funding. Also, it makes it easier to establish that members were in official travel status and therefore covered for Workman's Compensation or Accident benefits.
- Prepare a summary report of the meeting for distribution to the other members and ACRS staff, especially for those meetings that involve discussion of matters of interest to the ACRS.
- Ensure that the meeting participants understand that the views, if any, expressed by the member are his own and not those of the ACRS.

RECOMMENDATION

The Subcommittee recommended that Committee Members routinely fill out the Special Travel Endorsement Forms and prepare summary reports of meetings where applicable. The forms will be made available to the Members.

4. INTERNATIONAL

- The German RSK Committee sent a fax to suggest that the proposed September meeting with ACRS be postponed until either November 8-12 or December 12-13.

- The Canadian Advisory Committee on Nuclear Safety sent a message by e-mail concerning the agenda for the October 9, 1996 meeting with ACRS. This message included a suggested final agenda and specifically requested that the meeting focus more on discussions than on presentations.

RECOMMENDATION

The Subcommittee recommended that the Committee suggest either November 6 or December 4 as proposed dates for the meeting with the German RSK.

The Subcommittee recommended that the attached agenda remain the final agenda for the meeting with the Canadian Advisory Committee on Nuclear Safety, as it does not differ substantially from the agenda approved last month by the Committee.

5. ACRS REPORTS

The ACRS has recently written two reports (one on fire protection and the other on severe accident research) which have caused a significant amount of controversy at the EDO and Commission level. In one case, the usefulness of work in the area of fire protection performed by an ACRS consultant's company was endorsed without the associated report being reviewed by or made available to the Committee. In the second case, a comment was made that the NRC thermal-hydraulic and aerosol codes are not capable of predicting steam generator tube failure during severe accidents. This comment was made without prior discussion with the RES staff. Consequently, the staff was not able to provide information to the Committee regarding the capability of the NRC codes.

The fire protection report was eventually provided to the NRC staff by the consultant's employer and returned by the staff with a determination that it was not useful for the staff's purposes. The Committee's statements on the capability of NRC codes will be reconsidered at the September ACRS meeting in light of additional information to be provided by the NRC staff. Dr. Catton provided a report including an analysis of the issues to be discussed at the September meeting.

RECOMMENDATION

The Subcommittee recommended that the Committee address this issue during a review of its letter-writing process at the October retreat.

6) RETREAT

The ACRS retreat is scheduled to be held at the Royal Sonesta Hotel, 5 Cambridge Parkway, Cambridge, Massachusetts, on October 17-18, 1996. Reservations have been made for the nights of October 16 and 17 at the above hotel. Dr. Seale is preparing the agenda for this retreat.

7) COORDINATION WITH THE NSRRC

ACRS management has been working to improve communications between the ACRS and the NSRRC (included in August handouts). The Commission has since issued an SRM requesting that the NSRRC coordinate its activities with those of the ACRS. Coordination between ACRS and NSRRC would be an appropriate subject for discussion with Dr. Morrison at the September meeting.

RECOMMENDATION

The Subcommittee recommended that the Committee discuss this subject with Dr. Morrison at the September meeting.

8) MEMBER ISSUES

There were no Members' issues and no travel requests.

D. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 435th ACRS Meeting, October 9-12, 1996.

The 434th ACRS meeting was adjourned at 3:20 p.m. on Friday, September 13, 1996.

The filing of requests for hearings and petitions for leave to intervene is discussed below.

By September 27, 1996, any person who wishes to file a request for a hearing or petition for leave to intervene with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Richland Public Library, 955 Northgate Street, Richland, Washington 99352. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wished to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the

proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide reference to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by

the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5108 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to William H. Bateman, Director, Project Directorate IV-2: petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this Federal Register notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to M. H. Phillips Jr., Esq., Winston & Strawn, 1400 L Street NW., Washington, DC 20005-3512, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer of the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated August 9, 1996, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Richland Public Library, 955 Northgate Street, Richland, Washington 99352.

Dated at Rockville, Maryland, this 23rd day of August 1996.

For the Nuclear Regulatory Commission,
Timothy G. Colburn,

Senior Project Manager, Project Directorate IV-2, Division of Reactor Projects—III/IV,
Office of Nuclear Reactor Regulation.
[FR Doc. 96-21938 Filed 8-27-96; 8:45 am]
BILLING CODE 7590-01-P

★ Advisory Committee on Reactor Safeguards; Meeting Notice

In accordance with the purposes of Sections 29 and 182b. of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards will hold a meeting on September 12-13, 1996, in Conference Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The date of this meeting was previously published in

the Federal Register on Monday, November 27, 1995 (60 FR 58393).

Thursday, September 12, 1996

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

8:45 A.M.-10:45 A.M.: Adequacy of the Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accidents (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the adequacy of the NRC codes to analyze steam generator tube temperature distributions during severe-accident conditions.

Representatives of the industry will participate, as appropriate.

11:00 A.M.-11:15 A.M.: Reconciliation of ACRS Comments and Recommendations (Open)—The Committee will discuss responses from the NRC Executive Director for Operations (EDO) to comments and recommendations included in recent ACRS reports. The EDO responses are expected to be provided in writing to the ACRS prior to the meeting.

11:15 A.M.-11:45 A.M.: Report of the Planning and Procedures Subcommittee (Open/Closed)—The Committee will hear a report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, and organizational and personnel matters relating to ACRS.

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

11:45 A.M.-12:15 P.M.: Future ACRS Activities (Open)—The Committee will discuss recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future meetings.

1:15 P.M.-2:45 P.M.: Indian Point Unit 3 (Open)—The Committee will hear presentations by and hold discussions with representatives of the Indian Point Unit 3 licensee (New York Power Authority) regarding the resolution of issues that led to the shutdown of Indian Point Unit 3, and the status of resolution of new issues since the restart of the plant in June 1995.

Representatives of the NRC staff will participate.

3:00 P.M.-5:00 P.M.: Preparation of ACRS Reports (Open)—The Committee will discuss proposed ACRS reports on matters considered during this meeting.

5:15 P.M.-7:00 P.M.: Strategic Planning (Open)—The Committee will continue its discussion of items that are of significant importance to NRC, including rebaselining of the Committee activities for FY 97.

Friday, September 13, 1996

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

8:35 A.M.-10:30 A.M.: Meeting with the Director of the NRC Office of Nuclear Regulatory Research (RES) (Open)—The Committee will hear a presentation by and hold discussions with Mr. David Morrison, RES Director, on items of mutual interest including:

- Overview of the NRC research program and budget.
- Research priorities.
- NRC Thermal Hydraulic Code Activities.
- International cooperative research program.
- RES plans and priorities for providing information necessary for the development of risk-informed and performance-based regulations by expanding the scope of NUREG-1150 work to include Level 3 PRA for shutdown modes of operation, fire, and other external events; rationale for these plans and priorities; ongoing and planned research to do such PRAs for other modes of operation.

10:45 A.M.-12:00 NOON: Loss of Feedwater Event at Arkansas Nuclear One Unit 1 (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the findings and conclusions of the Augmented Inspection Team, which investigated the May 19, 1996 loss of feedwater event at Arkansas Nuclear One Unit 1.

Representatives of the licensee will participate, as appropriate.

1:15 P.M.-3:00 P.M.: Preparation of ACRS Reports (Open)—The Committee will discuss proposed ACRS reports on matters considered during this meeting.

Procedures for the conduct of and participation in ACRS meetings were published in the Federal Register on September 27, 1995 (60 FR 49925). In accordance with these procedures, oral or written statements may be presented by members of the public, 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. Sam Duraiswamy, Chief, Nuclear Reactors Branch, at least five days before the meeting, if possible, so that appropriate arrangements can be made to allow the necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during this meeting may be limited to selected portions of the meeting as determined by the Chairman.

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

In accordance with Subsection 10(d) Pub.L. 92-463, I have determined that it is necessary to close portions of this meeting noted above to discuss matters that relate solely to the internal personnel rules and practices of this Advisory Committee per 5 U.S.C. 552b(c)(2), and to discuss matters the release of which would constitute a clearly unwarranted invasion of personal privacy per 5 U.S.C. 552b(c)(5).

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by contacting Mr. Sam Duraiswamy, Chief, Nuclear Reactors Branch (telephone 301/415-7364), between 7:30 A.M. and 4:15 P.M. EDT.

ACRS meeting notices, meeting transcripts, and letter reports are now available on FedWorld from the "NRC MAIN MENU." Direct Dial Access number to FedWorld is (800) 303-9872; the local direct dial number is 703-321-3339.

Dated: August 22, 1996.

John C. Boyle

Acting Advisory Committee Management Officer

[FR Doc. 96-21939 Filed 8-27-96; 8:45 am]

BILLING CODE 7890-01-P

Advisory Committee on Reactor Safeguards, Subcommittee Meeting on Thermal Hydraulic Phenomena; Notice of Meeting

The ACRS Subcommittee on Thermal Hydraulic Phenomena will hold a meeting on September 18-19, 1996.



APPENDIX II

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

August 22, 1996

SCHEDULE AND OUTLINE FOR DISCUSSION
434th ACRS MEETING
SEPTEMBER 12-13, 1996

THURSDAY, SEPTEMBER 12, 1996, 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 (TSK/SD)

1.2) Items of Current Interest
(TSK/JTL/SD)

1.3) Priorities for Preparation of ACRS
Reports (TSK/SD)

2) 8:45 - ^{12:29}~~10:45~~ A.M.

Adequacy of the Codes to Analyze Steam Gen-
erator Tube Temperature Distributions During
Severe Accidents (Open) (MHF/NFD)

2.1) Remarks by the Subcommittee Chairman

2.2) Briefing by and discussions with
representatives of the NRC staff
regarding the adequacy of the NRC
codes to analyze steam generator tube
temperature distributions during
severe-accident conditions.

Representatives of the industry will
participate, as appropriate.

10:³⁰~~45~~ - ^{10:45}~~11:00~~ A.M.

BREAK

(See next page)

3) ~~11:00~~ - ~~11:15~~ A.M.
3:45 3:50 P.M.

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

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

4) ~~11:15~~ - ~~11:45~~ A.M.
4:05 4:58 P.M.

Report of the Planning and Procedures
Subcommittee (Open/Closed) (TSK/JTL)
Report of the Planning and Procedures
Subcommittee on matters related to the
conduct of ACRS business, and organizational
and personnel matters relating to the ACRS.

{ TRANSCRIBED PORTIONS OF THE MEETING

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

- 5) ~~11:45~~ - 12:15 P.M.
3:50 - 4:05 P.M.

Future ACRS Activities (Open) (TSK/SD)
Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future meetings.

12:15²⁹ - 1:15³⁰ P.M.

LUNCH

- 6) 1:15³⁰ - 2:45^{3:26} P.M.

Indian Point Unit 3 (Open) (JJB/MTM)
6.1) Remarks by the Subcommittee Chairman
6.2) Briefing by and discussions with representatives of the Indian Point Unit 3 licensee (New York Power Authority) regarding the resolution of issues that led to the shutdown of Indian Point Unit 3, and the status of resolution of new issues since the restart of the plant in June 1995.

Representatives of the NRC staff will participate.

3:26⁴⁵
2:45 - 3:00 P.M.

BREAK

- 7) 4:58^{6:30}
3:00 - 5:00 P.M.

Preparation of ACRS Report (Open)
Discussion of proposed ACRS report on:
7.1) Adequacy of NRC Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accidents (MHF/NFD)

5:00 - 5:15 P.M. - BREAK

- 8) 5:15 - 7:00 P.M. ~~Strategic Planning (Open) (TSK/STL)~~
 Discussion of items of significant importance to NRC, including rebaselining of the Committee activities for FY 97.

FRIDAY, SEPTEMBER 13, 1996, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 9) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open)
 (TSK/SD)

- 10) 8:35 - 10:30⁴ A.M. Meeting with the Director of the NRC Office of Nuclear Regulatory Research (RES) (Open)
 (TSK/MME)

- 10.1) Remarks by the ACRS Chairman
 10.2) Briefing by and discussions with Mr. David Morrison, RES Director, on items of mutual interest including:

- Overview of the NRC research program and budget
- Research priorities
- NRC Thermal Hydraulic Code Activities
- International cooperative research program
- RES plans and priorities for providing information necessary for the development of risk-informed and performance-based regulations by expanding the scope of NUREG-1150 work to include Level 3 PRA for shutdown modes of operation, fire, and other external events; rationale for these plans and priorities; ongoing and/or proposed research to do such PRAs for other modes of operation

10:30⁴ - 10:45⁵⁵ A.M.

BREAK

11) 10:⁵⁵~~45~~ - 12:¹⁵~~00~~ NOON

Loss of Feedwater Event at Arkansas
Nuclear One Unit 1 (Open) (JJB/AS)

11.1) Remarks by the Subcommittee
Chairman

11.2) Briefing by and discussions with
representatives of the NRC staff
regarding the findings and
conclusions of the Augmented
Inspection Team which investigated
the May 19, 1996 loss of feedwater
event at Arkansas Nuclear One Unit 1.

Representatives of the licensee will
participate, as appropriate.

12:¹⁵~~00~~ - 1:15 P.M.

LUNCH

12) 1:15 - 3:²⁰~~00~~ P.M.

Preparation of ACRS Report (Open)

Discussion of proposed ACRS report on:

13.1) Adequacy of NRC Codes to Analyze
Steam Generator Tube Temperature
Distributions During Severe
Accidents (MHF/NFD)

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

434TH ACRS MEETING
SEPTEMBER 12, 1996

NRC STAFF

| | |
|-----------------|------|
| Charles Ader | RES |
| R. Barrett | AEOD |
| Yi Chen | RES |
| David T. Dize | NRR |
| Joe Donoghue | NRR |
| Bill Gleaves | RES |
| W. Hodges | RES |
| R. Jones | NRR |
| Tom King | RES |
| Alan Levin | NRR |
| D. Morrison | RES |
| Bob Pacca | NRR |
| Tim Reed | NRR |
| John N. Ridgely | RES |
| Alan Rubin | RES |
| Jason Schaperow | RES |

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

434TH ACRS MEETING
SEPTEMBER 12, 1996

| | |
|--------------------|-----------------------|
| Darrell Knudson | INEL |
| Theresa Sutter | Bechtel |
| E. Boulette | Boston Edison (NSRRC) |
| Jim Meyer | Sciencetech |
| Steve Katradis | NUS Corp. |
| William A. Cross | STS |
| Clive Caallaway | NEI |
| John Kelly | NYPA |
| George Groilanski | NYPA |
| Robert Barrett | NYPA |
| Marc Pearson | NYPA |
| Muzaffer Karasulu | NYPA |
| Robert Deasy | NYPA |
| W. J. Cahill | NYPA |
| William A. Zosiger | |
| Harry Salmon | NYPA |
| Louie Allenbach | Arthur Anderson |
| Drew Valentine | Arthur Anderson |
| Ron Lamig | Penn State |

434TH ACRS MEETING
SEPTEMBER 13, 1996

NRC STAFF

| | |
|-----------------|-----|
| I. Ahmed | NRR |
| W. Beckner | NRR |
| R. Benedict | NRR |
| F. Coffman | RES |
| R. Eckenrode | NRR |
| F. Eltawila | RES |
| E. Goodwin | NRR |
| G. Hammer | NRR |
| T. Heavey | OC |
| W. Hodges | RES |
| R. Jones | NRR |
| Joel Kramer | RES |
| Tom King | RES |
| Alan Levin | NRR |
| Chu-yu Liang | NRR |
| S. Long | NRR |
| R. Meyer | RES |
| D. Morrison | RES |
| J. Murphy | RES |
| Dan O'Neal | NRR |
| Bob Pacca | NRR |
| J. Rajan | NRR |
| Tim Reed | NRR |
| Terry Reis | RIV |
| John N. Ridgely | RES |
| Alan Rubin | RES |
| L. Shea | RES |
| Jason Schaperow | RES |
| R. Wessman | NRR |

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

434TH ACRS MEETING
SEPTEMBER 13, 1996

| | |
|----------------|--------------------|
| Lynn Connor | Self |
| John N. Miller | Entergy Operations |
| Marc Smith | Entergy Operations |
| E. T. Boulette | NSRRC |
| Steve Katradis | NUS Corp. |

APPENDIX IV: FUTURE AGENDA

The Committee agreed to consider the following during the 435th ACRS Meeting, October 9-12, 1996:

WEDNESDAY, OCTOBER 9, 1996, 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 (Kress/Larkins/Duraiswamy)
- 2) 8:35 - 9:00 A.M. Introduction (Open) (Kress/Pearson/Larkins)
 - 2.1) Introduction of ACRS Members
 - 2.2) Introduction of the Members of the Canadian Advisory Committee on Nuclear Safety (ACNS)
 - 2.3) Discussion of ACRS and ACNS missions, regulatory environments, process/products, interactions, and independence
- 3) 9:00 - 11:30 A.M. Risk-Informed, Performance-Based Regulation (Open) (Apostolakis/Powers/Rogers/Markley)
(10:00-10:15 A.M. BREAK)
 - 3.1) Prescriptive vs Performance-based regulation
 - 3.2) PRA Methods and Completeness
 - 3.3) D e f e n s e - i n - D e p t h
- 11:30 - 1:00 P.M. LUNCH
- 4) 1:00 - 2:15 P.M. Plant Aging (Open) (Shack/Biron/Dudley)
 - 4.1) Discussion of issues associated with plant aging
- 5) 2:15 - 3:00 P.M. Operator Training/Simulator Use (Open) (Seale/Natalizio/Boehnert)
 - 5.1) Discussion of training of nuclear power plant operators, and use of simulators for training operators and other plant personnel
- 3:00 - 3:15 P.M. BREAK

- 6) 3:15 - 4:15 P.M. Digital Instrumentation and Control Systems (Open)
(Miller/Pearson/Markley/Singh)
- 6.1) Discussion of proposed Standard Review Plan Sections, Branch Technical Positions, and Regulatory Guides associated with the digital instrumentation and control systems
- 6.2) Discussion of the issues identified by the National Academy of Sciences/National Research Council (NAS/NRC) in the Phase 1 study, status of the Phase 2 study, and ACNS views on the use of digital instrumentation and control systems.

- 7) 4:15 - 5:00 P.M. Miscellaneous Matters (Open)
(Kress/Pearson/
Robertson/El-Zeftawy)
- 7.1) Discussion of miscellaneous issues, including ALARA, cost-benefit considerations, safety culture, etc.

THURSDAY, OCTOBER 10, 1996, CONFERENCE ROOM 2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

- 8) 8:30 - 8:45 A.M. Opening Remarks by the ACRS Chairman (Open)
- 8.1) Opening Statement (TSK/SD)
- 8.2) Items of current interest (TSK/JTL/SD)
- 8.3) Priorities for preparation of ACRS reports (TSK/SD)
- 9) 8:45 - 10:15 A.M. Status of NRC Strategic Assessment and Rebaselining Effort (Open) (TSK/MME)
- 9.1) Remarks by the ACRS Chairman
- 9.2) Briefing by and discussions with the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, regarding the status of the NRC

strategic assessment and
rebaselining effort.

10:15 - 10:30 A.M. BREAK

10) 10:30 - 12:00 Noon Digital Instrumentation and Control Systems

(Open) (DWM/MTM)

10.1) Remarks by the Subcommittee Chairman

10.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed Standard Review Plan Sections and Branch Technical Positions associated with the digital instrumentation and control systems.

Representatives of the nuclear industry will participate, as appropriate.

12:00 - 1:00 P.M. LUNCH

11) 1:00 - 2:30 P.M. Control Room Back-Panel Fire at Palo Verde Unit 2 (Open) (JJB/AS)

11.1) Remarks by the Subcommittee Chairman

11.2) Briefing by and discussions with representatives of the NRC staff regarding the findings and recommendations resulting from the investigation of the April 4, 1996 event that involved two related fires in a back panel of the main control room of Palo Verde Nuclear Power Plant, Unit 2.

Representatives of the licensee will participate, as appropriate.

12) 2:30 - 3:00 P.M. Report of the Planning and Procedures Subcommittee (Open/Closed) (TSK/JTL)
Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, and organizational and personnel matters relating

to the ACRS.

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

APPENDIX V
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE

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

MEETING HANDOUTS

AGENDA

DOCUMENTS

ITEM NO.

- 1 Opening Remarks by the ACRS Chairman
 1. Items of Interest, ACRS, 434th Meeting, September 12-13, 1996.
- 2 Adequacy of the Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accidents
 2. Analysis of Steam Generator Tube Conditions During Severe Accidents, presented by Charles G. Tinkler, RES, dated September 12, 1996 [Viewgraphs]
 3. Adequacy of Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accident, submitted by Noel Dudley, ACRS, [Handout #2.1]
3. Reconciliation of ACRS Comments and Recommendations
 4. Reconciliation of ACRS Comments and Recommendations [Handout #3.1]
4. Report of the Planning and Procedures Subcommittee
 5. Final Draft Minutes of Planning and Procedures Subcommittee Meeting - September 11, 1996 [Handout #4.1]
5. Future ACRS Activities
 6. Future ACRS Activities - 435th ACRS Meeting, October 10-12, 1996 [Handout #5.1]
6. Indian Point Unit 3
 7. New York Power Authority, Indian Point 3 Nuclear Plant, presented by William J. Cahill, Jr., Harry Salmon, Jr., Robert J. Barrett, and Marc Pearson, New York Power Authority, dated September 12, 1996 [Viewgraphs]

7. Meeting with the Director of the NRC Office of Nuclear Regulatory Research (RES)
8. ACRS Briefing: NRC's Research Program, dated September 13, 1996, presented by David L. Morrison, Director, Office of Nuclear Regulatory Research [Viewgraphs]
8. Loss of Feedwater Event at Arkansas Nuclear One Unit 1
9. ACRS Presentation, Arkansas Nuclear One, Unit 1: Reactor Trip with Steam Generator Dryout, May 19, 1996, presented by Terrence Reis, Region IV on September 13, 1996 [Viewgraphs]

MEETING NOTEBOOK CONTENTS

TAB

DOCUMENTS

2. Adequacy of the Codes to Analyze Steam Generator Tube Temperature Distributions During Severe Accidents
 1. Table of Contents
 2. Agenda
 3. Status Report, dated September 12, 1996
 3. Report from T.S. Kress, Chairman, ACRS, to Shirley A. Jackson, Chairman, NRC, dated June 28, 1996: Severe Accident Research
 4. Letter from James M. Taylor, Executive Director for Operations, NRC, to T.S. Kress, Chairman, ACRS, dated July 26, 1996: Severe Accident Research
 5. Article from Inside NRC, August 19, 1996: NRC Rechecking Code Used to Justify Operation with Cracked SG Tubes.
6. Indian Point Unit 3
 8. Table of Contents
 9. Proposed Schedule
 10. Status Report
 11. Letter from Thomas T. Martin, Regional Administrator, NRC Region 1, to Mr. William J. Cahill, Jr., dated June 19, 1995: Restart of the Indian Point 3 Nuclear Power Plant (Modification of CAL-1-93-009) and two attachments.
10. Meeting with the Director of the NRC Office of Nuclear Regulatory Research (RES)
 12. Table of Contents
 13. Tentative Agenda, dated September 13, 1996
 14. Status Report
 15. Memorandum from John T. Larkins, Executive Director, ACRS, to David L. Morrison, Director, Office of Nuclear Regulatory Research: ACRS Meeting with the Director of the NRC Office of Nuclear Regulatory Research, September 13, 1996, Rockville, Maryland
11. Loss of Feedwater Event at Arkansas Nuclear One Unit 1
 16. Table of Contents
 17. Proposed Schedule
 18. Status Report, dated September 13, 1996