

# CERTIFIED

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PDR 10/3/96

MARCH 7-9, 1996

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#### Resolution of Generic Safety Issue 78, "Monitoring of Fatigue Transient Limits for the Reactor Coolant System" (Letter to James M. Taylor, Executive Director for Operations, NRC, from T.S. Kress, Chairman, ACRS, dated March 14, 1996.)

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429th ACRS Meeting  
March 7-9, 1996

MINUTES OF THE FOUR HUNDRED TWENTY-NINTH MEETING OF THE  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
MARCH 7-9, 1996  
ROCKVILLE, MARYLAND

The 429th meeting of the Advisory Committee on Reactor Safeguards was held at Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on March 7-9, 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; however, there was one request for time to make an oral statement from a member 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. James C. Carroll, Dr. Ivan Catton, Dr. Mario H. Fontana, Mr. William J. Lindblad, Dr. Don W. Miller, Dr. Dana A. Powers, Dr. William J. Shack, and Mr. Charles J. Wylie. [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 Ms. Greta Dicus had been sworn in as an NRC Commissioner, Westinghouse had requested re-initiation of the AP600 design certification, General Electric is changing the focus of the SBWR from a 600-megawatt to a 1000-megawatt size, and Time magazine had an article on the Millstone spent fuel pool issues.

II. Regulatory Guidance Documents Related to Digital Instrumentation and Control Systems (Open)

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



## Introduction

Dr. Don W. Miller, Chairman of the Instrumentation and Control Systems and Computers Subcommittee, introduced the topic to the Committee and recognized the Members and ACRS Invited Expert, Edward L. Quinn, who participated in the Subcommittee meeting held March 6, 1996. He also introduced representatives of the NRC staff and its contractor, the Lawrence Livermore National Laboratory (LLNL). Dr. Miller stated that the purpose of this meeting was to review staff efforts to update the existing Standard Review Plan (SRP) Chapter 7 (NUREG-0800), related to digital instrumentation and control (I&C) systems. He read a brief statement from a letter dated January 3, 1996, from Mr. James M. Taylor, Executive Director for Operations, to Chairman Jackson, stating that 1) the update was not required or needed by the industry to facilitate digital upgrades since the regulatory framework already exists, 2) the purpose of this update is to "codify" the framework into one package, and 3) the update is not expected to introduce any new dimensions into the regulatory framework. He noted that this portion of the SRP Update will include two SRP Sections (7.0 and 7.1), one Branch Technical Position (BTP-14), and two Regulatory Guides (RGs) that endorse four industry standards. He noted that this review would also include the NRC staff's safety evaluation report (SER) on electromagnetic/radiofrequency interference (EMI/RFI) which endorses a topical report developed by the Electric Power Research Institute (EPRI).

## NRR Presentation

Mr. Matthew Chiramal, Senior Level Advisor, Instrumentation and Control Branch (HICB), NRR, introduced the NRC staff and led the discussion of the proposed SRP Update (BTP and SRP Sections). He provided an overview of SRP Chapter 7 which included discussion of the basic requirements, the process for conducting digital system reviews, their model for software life-cycle activities, the integrated schedule of NRC staff and contractor activities, and expected items for future ACRS reviews. He also presented the SER associated with the EPRI topical report on EMI/RFI. Significant points made during the discussion were:

- The proposed changes to SRP Chapter 7 will not reduce safety over current practices and will maintain existing regulatory bases.
- The proposed SRP Update incorporates lessons learned from advanced light water reactor reviews, digital retrofits, and industry operating experience. It will describe criteria for both operating plants (modifications) and proposed future reactor designs.
- Review scope and depth is based on safety significance.

- The staff will integrate insights from the National Academy of Sciences/National Research Council (NAS/NRC) Phase 2 study when received in September 1996.
- The NRC staff plans to issue the SRP Chapter 7 Update for public comment in October 1996.

#### RES/LLNL Presentation

Dr. John A. Scott, LLNL, led the discussion for RES regarding development of RGs and endorsement of industry standards. He noted that the purpose of the regulatory guides is to provide methods acceptable to the NRC in meeting regulatory requirements. He reviewed the approach taken by Institute of Electrical and Electronics Engineers (IEEE) in developing the industry standards, key aspects of RG development, the relationships and importance of certain standards, conclusions in the regulatory analysis, and exceptions the NRC had taken to positions contained within those standards. Significant points made during the discussion were:

- The overall philosophy is to tie the RGs to existing NRC regulations and industry consensus standards.
- IEEE Standards generally define "what" has to be accomplished rather than "how" and are not normally specific to particular industries.
- Endorsement of software engineering standards has the lowest resource impact for the NRC staff while providing high value in achieving common understanding of acceptable software practices.
- Selection basis for standard endorsement is the maturity of the standard and its relevance to safety considerations.

Mr. Lindblad questioned the role of BTPs in the regulatory process. Specifically, he asked whether BTPs could be or should be SRP Sections and whether changes to BTPs represent formal updates to the SRP. The NRC staff stated that BTPs represent broader aspects covering more than one SRP Section and that BTP revisions do not represent formal SRP updates.

Dr. Powers questioned the way risk was integrated into the review process and the technical bases for consensus standards. He also asked what regulatory process was used to determine the technical validity of the standards being endorsed. He noted that software still fails despite standards to preclude such events. Dr. Kress questioned how the NRC defines what is acceptable in industry standards and Mr. Lindblad asked whether the NRC issues SERs on industry standards. The NRC staff described the comment resolution

process and the role of expert opinion used to develop consensus on the standards. The staff does not develop SERs on industry standards that are endorsed by RGs. Dr. Miller noted that the IEEE practice is to review standards every five years.

Dr. Miller questioned the extent to which a "graded approach" may be implemented. The NRC staff stated that the graded approach is based on importance to safety. They described the evaluation process to be used by the reviewer in assessing safety considerations, but acknowledged that it may not be fully described in the specific language of the documents. Dr. Miller noted that the graded approach may be more evident in October 1996 after further work is completed.

There was significant Committee discussion regarding the staff's use of terminology, and incomplete or difficult-to-trace references. The staff agreed to modify the documents to clarify these issues.

Mr. Wylie questioned how the results of the NAS/NRC Phase 1 study had affected the program. The staff stated that little new information was presented and that few changes had been made. Mr. Wylie expressed the view that the staff had done a good job on the SRP Update.

The Committee expressed no objection to the NRC staff endorsing the EPRI topical report on EMI/RFI. However, several issues related to Dr. Powers' questions on the validation of consensus standards remain unresolved and will be the subject of future ACRS discussions.

### Conclusion

Based on Dr. Powers' concerns, the Committee deferred preparing a letter to the Executive Director for Operations on this issue.

### III. Reactor Vessel Annealing (Open)

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

### Introduction

Dr. William Shack introduced the subject by noting that Consumers Power Company has decided to anneal the Palisades reactor pressure vessel in order to eliminate the radiation embrittlement that has led to pressurized thermal shock concerns. He explained that the Department of Energy (DOE) is currently sponsoring annealing demonstration projects (ADP) for two unirradiated reactor pressure vessels.

### DOE Presentation

Mr. Earl Wahlquist, DOE, introduced the DOE speakers and provided an overview of the DOE annealing program. The program includes the ADP, subsequent reviews of the regulatory process, and the commercial annealing of an irradiated reactor pressure vessel. Mr. Dennis Harrison, DOE, stated that the goal of the ADP is to develop data, techniques, and methods to ensure that basic component design is unaffected by thermal annealing. Objectives of the ADP include verifying the stability of reactor pressure vessel dimensions, acquiring temperature data, gaining insights into regulatory issues, and identifying methods for minimizing personnel exposure.

Dr. James Nakos, Sandia National Laboratories, explained the details of the ADP at the Marble Hill and Midland sites, and provided a basic overview of the structures and components that will be monitored. He provided details regarding the procedure for instrumenting, heating, stabilizing, and cooling the vessels. Foreign and domestic utilities/vendors and MOHT (the Russian Annealing Consortium) are participating in the ADP.

The Marble Hill vessel will be radiantly heated by a series of stacked toroids placed in the vessel. Propane burners outside the containment will generate hot air, which will convectively heat the stainless steel toroids. The Midland vessel will be heated by a bank of resistance heaters placed in the vessel. The temperature of the vessels, components, and support structures will be measured using retractable probes, thermal-couples (TC), and resistance temperature detectors (RTD).

The ACRS members and representatives of DOE discussed the location of RTDs and TCs, the use of finite element analysis, the advantages of using the propane heating system, nondestructive testing of vessels, and the effect of annealing on concrete structures. They also discussed how the different Russian and American vessel construction methods affected the design of the heaters. Dr. Nakos stated that safety regulators are expected to assure proper vessel recovery by verifying licensee compliance with the approved annealing procedure.

### NRC Staff Statements

Mr. Michael Mayfield, RES, stated that NRC is actively involved with DOE in observing the annealing demonstrations. He indicated that enough research has been done in conjunction with the ADP to provide an adequate basis for the staff to review the Palisades annealing plan.



Conclusion

The Committee took no action based on this informational briefing.

IV. Adequacy of Individual Plant Examinations (Open)

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

The Committee completed its deliberations on this issue after a brief discussion with representatives of the NRC staff.

Conclusion

The Committee issued a report to Chairman Jackson dated March 8, 1996 on this matter.

V. Applicability of RELAP5/MOD3 Code for the AP600 Design  
(Open/Closed)

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

Introduction

Dr. Catton, cognizant ACRS Member, indicated that the Committee had been asked by RES to provide formal comments on its program to assess the adequacy of the RELAP5 code for calculation of AP600 passive plant phenomena. He said that RES needs to consider both the code adequacy (via the Phenomena Identification and Ranking Table (PIRT)) and the test data adequacy (via top-down scaling analysis). The code must be exercised against this data and all results, good and bad, must be explained. Concerning the latter point, Dr. Catton related how the strong thermal stratification observed in the ROSA facility was caused by a violation of geometric similitude vis-à-vis the AP600 design (atypical piping configuration).

RES Presentation - RELAP5 Code Adequacy Assessment Program

Mr. F. Eltawila, RES, provided an overview of the adequacy assessment program. The program objectives, elements, key issues, and future scheduling milestones were discussed. RES plans to have a version of the code (MOD3.2N) available for the conduct of confirmatory assessment by April 1, 1996. This schedule is challenging since a number of model changes have yet to be incorporated into RELAP5.

In response to questions by Mr. Lindblad, RES said that they cannot proclaim the code is "adequate" until all the planned model changes

have been made. As such, the code has yet to be placed in a frozen mode for analysis. RES will rerun all the major AP600 accident analyses performed to date (SBLOCA, DVI line break, PBL break, and inadvertent ADS actuation).

#### ALWR Code Development

The process being used to identify and assign priority to code development needs and correct deficiencies in RELAP5 models and correlations was discussed by Mr. J. Kelly. The focus of his presentation was on the specifics of the code deficiencies identified from the PIRT high-ranking phenomena for the one-inch cold leg break calculations. Idaho Nuclear Engineering Laboratory has developed a number of major code changes, now underway, to address the significant known deficiencies.

#### Top-Down Scaling Studies Related to AP600 Facilities

Dr. S. Banerjee (University of California-Santa Barbara), reviewed the status of the RES effort to perform a top-down or global scaling analysis to ensure that the results obtained from the major test facilities (ROSA, OSU, and SPES) can be applied to the prediction of thermal-hydraulic behavior in the AP600 nominal design. He discussed the study objectives, their unique aspects, the (eight-step) approach employed, and the results obtained to date. Dr. Banerjee indicated that RES believes that they have identified all the main scaling groups (Pi-Groups) that impact the behavior of the design.

As a result of discussion, engendered by Dr. Power's questions, Dr. Catton suggested that the above scaling study needs to be overlaid with a more rigorous formal analysis.

#### Conclusion

The Committee issued a letter to the Executive Director for Operations dated March 19, 1996 on this matter.

#### Westinghouse Best-Estimate LOCA Methodology

Dr. Catton also noted that the Committee raised some concerns, both technical and procedural, in its letter of February 23, 1996 relative to the Westinghouse best-estimate LOCA methodology. He indicated that Westinghouse is prepared to present information that it believes will address the Committee's concerns related to the use of its COBRA/TRAC best-estimate ECCS code. Dr. Catton reiterated his specific concerns regarding this methodology and proposed that representatives of Westinghouse Electric Corporation and the NRR staff make presentations to the Committee during its April Meeting with the expectation that this issue can be resolved.

This presentation will be scheduled, consistent with timely receipt of the relevant documentation from Westinghouse. The Committee indicated its agreement with Dr. Catton's proposal.

#### VI. Fire Protection Issues (Open)

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

Dr. Ivan Catton, Chairman of the Fire Protection Subcommittee, stated that the primary reason for the meeting was to discuss (1) a PRA model for evaluating fire risk during a self-induced station blackout (SISBO), (2) scoping analyses of degraded fire barriers developed by Brookhaven National Laboratory (BNL), (3) development of Alternative Fire Endurance Time-Temperature Curve Study performed by NIST, and (4) the status of the NRC Fire Protection Task Action Plan and Penetration Seals.

#### NRR Presentation

Steven West of NRR briefly discussed the status of the four fire protection issues; namely, Thermo-Lag fire barriers, fire barrier penetration seals, the fire protection functional inspection program, and SISBO and the fire barrier reliability study. SISBO and the fire barrier study will be discussed by Mr. Higgins of BNL. Mr. West stated that Thermo-Lag has been used in 86 units and the licensees for these units have submitted corrective action programs and schedules for implementing corrective actions. The staff's ongoing generic assessment program in the area of penetration seals is very comprehensive. The staff has completed the inspections of six reactors, two installation vendors, and the Dow Corning Corporation. The assessment report will be completed in June 1996.

Briefly, Mr. West gave an overview of the new fire protection functional inspection (FPFI) program. The FPFI program will include new inspection procedures and guidance for pilot inspections, fire barriers and penetration seals, emergency lighting, and safe shutdown analyses. The staff developed the Fire Protection Task Action Plan to manage the recommendations resulting from assessments of the staff review process for Thermo-Lag fire barriers. Current staff activities include developing performance-based fire protection regulations and evaluating SISBOs and fire barriers other than Thermo-Lag.

#### BNL Presentation

Mr. Higgins of BNL presented the background, objectives and conclusions of the SISBO risk study and the overall approach used to perform this study. The objective of this study was to evaluate



the relative and absolute risk significance of SISBO in order to prevent spurious actuations of the associated circuits during a fire either in the control room (CR) or cable spreading room (CSR). This study was performed in plants that had full electrical isolation schemes and in typically older plants that have minimal electrical isolation schemes. The study developed a standard PRA model, by using event tree methods, to evaluate the risk associated with the various options in the event of a fire either in the CR or the CSR. The model incorporated the frequency of a fire occurrence, the FEIS, the SISBO factor, potential spurious actuations, failures of equipment, and operator recovery actions. The model was evaluated with and without the electrical isolation scheme, and also with and without the SISBO factor.

The probability of a spurious actuation of the pressurizer power-operated relief valve was varied to determine the effect of such an actuation upon the overall risk associated with the assumed fires. The probability values selected for this study ranged from  $1 \times 10^{-3}$  to 0.5 fires per year.

An alternate shutdown procedure may impose a SISBO in the event of a fire; hence, this model evaluated four cases with the station blackout (SBO) time varying from 1 to 4 hours. The results of the risk analyses were obtained by plotting the contribution to core damage frequency (CDF) per year resulting from a fire in the CR or in the CSR. The CDF changed as the probability of spurious actuation varies from  $1 \times 10^{-3}$  to 0.5. For the plant that has an FEIS, there is still some probability of spurious actuation because there is a time delay, after the fire starts, before all isolation switches are actuated. For this case, the probability is in the high  $10^{-6}$  range. A plant that has no FEIS and that does not impose an SBO has a CDF as a result of these fire sequences in the high  $10^{-5}$  range. The probability is not conditional, but it is an absolute value.

#### Scoping Analysis of Degraded Fire Barriers

Mr. Higgins also discussed the background, objectives, and impact of the BNL scoping analysis for degraded fire barriers. The scoping analysis assessed the magnitude of the relative effects of failure of various fire protection features. Mr. Higgins stated that the approach taken to perform the analysis utilized an event tree/fault tree methodology to characterize the expected plant risks resulting from failed or degraded fire mitigation features. He stated that fault tree variables included suppression effectiveness, fire brigade response, and proper notification of the operators. The risk impact of degraded fire barrier performance was also considered in developing the models. The sensitivity evaluations indicated that the degraded performance of 3-hour rated fire barriers has a somewhat higher impact on conditional core

damage probability than the 1-hour rated fire barriers. The sensitivity evaluations also showed that automatic fire suppression systems play an important role in mitigating fire risks for scenarios involving degraded performance of 1-hour rated fire enclosures.

Mr. Higgins presented the scope of the Phase II evaluation of the SBO-related issues. Phase II will include the validation of the Phase I findings and adaptation of the generic model to site-specific parameters.

The following comments were made by members of the Committee:

- ° The BNL study focused on the effectiveness of the procedures used to mitigate fires and did not address the probabilistic treatment of fires. The scope of the study did not include a number of issues that could affect the conclusions. For example, the BNL study addressed neither the effects of fire and smoke on human actions, nor the possible damage to sensitive electronic control and safety instrumentation. The study is weak in the areas of modeling human actions for the manual shutdown and restart of electrical equipment after an SBO condition. Because of the limitations of the analysis and the failure to quantify uncertainties, no substantive conclusion can be drawn from this scoping study.
- ° The analysis of degraded fire barriers developed by BNL was based on event tree/fault tree models. Although this is a step in right direction, the analysis does not use the best available methods for modeling fire propagation, detection, and suppression.
- ° The Committee questioned the need for a National Institute of Standards and Technology study to develop the alternate time-temperature curves for the fire barrier qualification for nuclear power plants.

### Conclusion

The Committee issued a report to Chairman Jackson dated March 15, 1996 on this matter.

### VII. Probabilistic Risk Assessment (Open)

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

Dr. Apostolakis, Chairman of the Probabilistic Risk Assessment (PRA) Subcommittee, introduced the topic to the Committee and reviewed the discussions of the Subcommittee meeting held February

27-28, 1996. He noted that the Chairman had requested ACRS views on the NRC PRA framework document (SECY-95-280), its relationship to the pilot applications, and the next steps to expand the use of PRA in the regulatory decision-making process. He highlighted key points the Subcommittee requested the NRC staff to address during the full ACRS meeting. These included: the need for better definition of terminology, a problem statement indicating the need for PRA and a vision for its use in strategic planning, definition of how the pilot projects fit into the picture, distinction between deterministic and probabilistic elements, and integration of performance-based and risk-informed concepts. He introduced responsible NRC managers and Mr. Tony Pietrangelo of the Nuclear Energy Institute (NEI) who requested an opportunity to speak to the Committee on this subject.

#### NRC Presentation

Mr. Gary M. Holahan, Director, Division of Systems Safety and Analysis (DSSA), NRR, introduced the NRC staff and led the discussions. Messrs. Edward J. Butcher, NRR, Steven E. Mays, AEOD, and Mark A. Cunningham, RES, provided supporting discussion.

Mr. Holahan provided an overview of the PRA program, the PRA Policy Statement and objectives for increasing the use of PRA, descriptions of risk-informed and performance-based regulation, and the NRC staff's schedule and milestones for framework development. Significant points made during the discussion were:

- The objectives for increasing the use of PRA are to enhance decision-making related to safety, to make efficient use of NRC resources, and to reduce the regulatory burden to the industry, where appropriate.
- The PRA Policy Statement supports the use of PRA in all regulatory matters to the extent that it complements the NRC's deterministic approach and supports the defense-in-depth philosophy. PRA analyses should reduce unnecessary conservatism with current regulations, but these regulations shall be complied with unless revised. PRA evaluations should be as realistic as practicable and should be publicly available for review. The NRC's safety goals are to be used with appropriate consideration for uncertainties in making regulatory judgments on the need for proposing or backfitting new generic requirements.
- Risk-informed regulation: Insights derived from PRA are to be used in combination with deterministic and engineering analyses to focus licensee and regulatory attention on issues commensurate with their importance to safety.

- Performance-based regulation: Once important areas for safety focus are identified, measurable parameters to monitor plant and licensee performance are selected; objective criteria are established based on risk insights, deterministic analyses, and performance history; and licensees are afforded flexibility to determine how to meet established performance criteria.

#### NEI Presentation

Mr. Pietrangelo reviewed the activities of the NEI Risk Applications Task Force and the deliberations of a recent meeting between NEI and industry chief executive officers (CEOs) on this subject. He noted that the CEOs wanted to move incrementally toward PRA consistent with the NRC Policy Statement and wanted a deliberate movement toward their PRA vision as described in the draft "NEI White Paper." Mr. Pietrangelo made the following significant points during his discussion:

- NEI hopes to provide industry guidance through its Applications Guide such that the NRC may endorse it in regulatory guides.
- The PRA Risk Applications Task Force is developing specific applications similar to those in the NRC pilot applications (e.g., ISI, IST, etc.).
- Screening criteria are not decision criteria. Screening criteria should avoid safety goals and not penalize plants with low core damage frequency.
- NEI believes that conditional containment of probability is fundamentally flawed and that the NRC safety goals should not be used as a measure.
- Risk ranking has a lot of applications. The NRC staff believes it has generic applicability and NEI agrees.
- NRC and NEI are in close agreement with regard to terminology.
- The current NRC program lacks specificity related to performance criteria to maintain adequate levels of safety. It also lacks a performance-based approach and none of the pilot applications are performance-based.

Dr. Powers questioned whether PRA could be viewed as an additional layer of regulatory burden as opposed to less regulation. The NRC staff explained that the intent was to reduce unnecessary regulatory burden without reducing safety margins and that the staff does not plan to give up defense-in-depth.



Dr. Kress expressed the view that defense-in-depth and dose/risk criteria could be treated separately and were not incompatible. Mr. Lindblad noted that the NRC Chairman had been critical of the number of license exemptions and the slowness of enforcement. He expressed the view that PRA could be a good tool to that effect.

Dr. Kress took exception to the staff's definition for risk-informed regulation. He expressed concern regarding acceptable risk criteria, uncertainty, and the broadness of what might be considered "important to safety." Dr. Apostolakis questioned why it cannot be defined in both measurements and calculations. The NRC staff stated that their definition describes a process and acknowledged that it could be represented in measures and calculations. They noted that performance-based measures focus on outputs or results and that there is a spectrum of measures between the inputs and outputs that can be evaluated. Dr. Catton expressed the view that one cannot get to risk without calculations and those calculations must include uncertainty.

At the conclusion of the meeting, Dr. Apostolakis reviewed the points he expects to carry forward in drafting a letter for Committee consideration at the ACRS meeting in April 1996. He noted that the Committee is reviewing the program in the early stages of development and much work remains to be done. At this time, he had no major objections to the overall approach taken by the staff. He stated that he believes progress is being made toward the definition of terminology but that the staff needs to address performance-based aspects in a more direct manner.

### Conclusions

The Committee intends to send a report to the Commission on this issue in April, 1996.

### VIII. Resolution of Generic Safety Issue 78, Monitoring of Fatigue Transient Limits for the Reactor Coolant System (Open)

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

### Introduction

Dr. Seale began by noting that the ACRS had heard a presentation on the proposed resolution of Generic Safety Issue (GSI) 78 during the September 7-9, 1995, ACRS meeting. He explained that prior to the completion of a Committee letter on this subject, the staff identified a computational error that might have invalidated the staff's conclusion. Mr. Seale stated that the staff would explain the significance of the computational error.

### NRC Presentation

Mr. Charles Serpan, RES, explained that the resolution of GSI-78 includes an analysis of the risk associated with the fatigue failure of reactor primary coolant system components. The risk analysis is based on results of calculations performed using the mainframe version of the PRAISE code. While using the PC-PRAISE code, a version of the code for personal computers, the staff identified an error. After investigation, the staff found that a coding error had occurred in translating the mainframe PRAISE code to the PC-PRAISE code. The code authors corrected the error and verified the PC-PRAISE code. Mr. Serpan concluded that the analysis supporting the resolution of GSI-78 is unaffected by the identified error.

### Conclusion

The Committee issued a letter to the Executive Director for Operations dated March 14, 1996 concerning the resolution of GSI-78. The Committee had tabled the letter at the December 7-8, 1995 ACRS meeting, after learning of the code error.

[Dr. W. Shack did not participate in the Committee's review of this matter due to conflict-of-interest considerations.]

The Committee also heard a brief Report from the Subcommittee on Westinghouse.

## X. EXECUTIVE SESSION (Open)

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

### A. Reports, Letters and Memoranda

#### Use of Individual Plant Examinations in the Regulatory Process

(Report to Shirley A. Jackson, Chairman, NRC, from T. S. Kress, Chairman, ACRS, dated March 8, 1996)

#### Review of Recent Fire Probabilistic Risk Assessment Reports by Brookhaven National Laboratory and Certain Fire Barrier Issues (Report to Shirley Ann Jackson, Chairman, NRC, from T.S. Kress, Chairman, ACRS, dated March 15, 1996.)

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#### NRC Staff Program on the Adequacy Assessment of the RELAP5/MOD3 Code for Simulation of AP600 Passive Plant

Behavior (Letter to James M. Taylor, Executive Director for Operations, NRC, from T.S. Kress, Chairman, ACRS, dated March 19, 1996.)

Proposed Revision 8 to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" (Memorandum to James M. Taylor, Executive Director for Operations, from John T. Larkins, Executive Director, ACRS, dated March 14, 1996)

B. 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 February 15, 1996, responding to the ACRS report dated March 17, 1995, concerning the proposed revision to 10 CFR Parts 2, 50, and 51 related to decommissioning of nuclear power reactors.

The Committee decided that it was satisfied with the EDO 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 March 6, 1996. The following items were discussed:

\* Items from the February 7, 1996 Subcommittee Meeting.

\*1. DR. LARKINS' MEETING WITH CHAIRMAN JACKSON

Dr. Larkins met with Chairman Jackson on Tuesday, February 6, 1996, to discuss administrative and other issues pertaining to the operation of the ACRS and ACNW, including:

- Establishing a Joint ACRS/ACNW Subcommittee to advise the Commission on technical issues of mutual interest
- Priority issues and coordination with NRC staff
- Office budget and foreign travel
- ACRS/ACNW interest in the Commission's rebaselining/re-assessment Phase 1 results
- ACRS/ACNW solicitation for new members



- ACRS review of technical issues (e.g., use of IPEs, development of risk models, digital I&C, and the NRC research program)
- ACNW technical issues
- ACRS/ACNW interest in the proposed external regulation of DOE's nuclear activities

#### Conclusion

The Subcommittee recommended that a copy of the Executive Summary of the Final Report of the DOE Advisory Committee on External Regulation of DOE Nuclear Safety be provided to all members. (It was distributed to the members on Thursday, February 8, 1996).

#### \*2. CANDIDATES FOR ACRS MEMBERSHIP

A list of individuals who have applied for membership to the ACRS has been provided to all members.

#### Conclusion

The Subcommittee recommended that this list be discussed at the March ACRS Full Committee meeting.

(Update) Approximately 160 applications were received, out of which about 10% of the applicants were determined to possess the appropriate qualifications. Two sets of books containing all the applications are in the caucus room for members to review. A panel has been established to review the selected applications, and the panel's top 3-4 selections will be presented to the Committee at the April meeting. The top 3-4 candidates will also be invited for an interview during the April meeting.

#### Conclusion

The Subcommittee recommended that, during the meeting, Committee members peruse the applications in the books and make any comments they might have to the Executive Director before the Selection Panel meets next week.

#### \*3. INTERNATIONAL MEETINGS

- Letters have been sent to the Japanese, Germans, and French suggesting a Quadripartite Meeting at the end of the Fiscal Year.
- The Canadian Advisory Committee met on February 2nd and discussed our proposal for a meeting later this year. They agreed to meet with the ACRS in Washington in the

fall and agreed to our proposed topic (use of risk-based regulation).

- Dr. Larkins received a call from Dr. Hicken of the RSK Reactor Safety Committee who expressed an interest in meeting with the ACRS full Committee or a Subcommittee in June on the subject of research for advanced reactor designs.

#### Conclusion

The Subcommittee recommended that the ACRS staff continue to work with the Canadian Advisory Committee on the date(s) and exact location for a joint meeting, and also make arrangements for a meeting with Dr. Hicken from the RSK Subcommittee in June 1996.

- (Update) ● The Subcommittee recommended that the meeting with the RSK Subcommittee be scheduled for the Wednesday before the June full Committee meeting currently scheduled for June 20-22, 1996. Since several members plan to attend the ANS meeting scheduled for June 16-20, they will not be able to attend the meeting with the RSK nor the ACRS Full Committee Meeting. Therefore, the Subcommittee recommended that the dates of the June meeting be changed to June 13-15, 1996, and the meeting with the RSK Subcommittee be scheduled for June 12, 1996.
- The response from the Japanese was that they preferred a Quadripartite meeting in 1997. The response from Germany was that they would probably agree to a meeting this year. No response has been received from the French.

#### Conclusion

The Subcommittee asked the ACRS staff to send our membership list to the three Quadripartite countries and ask for a list of their members in return.

#### \*4. ACRS/ACNW JOINT SUBCOMMITTEE

A list of possible issues for the Joint Subcommittee meeting scheduled for March 26th was attached to the Minutes. ACRS Members of the Subcommittee are Drs. Kress, Seale, Powers, and Shack. ACNW Members are Drs. Garrick and Steindler. As is always the case, other ACRS/ACNW members are invited to participate where they have an interest.

### Conclusion

The Subcommittee recommended that formation of the Joint Subcommittee be discussed at the Full Committee meeting and members be asked to propose additional items to the Joint Subcommittee.

(Update) A copy of the Draft Protocol for the Joint ACRS/-ACNW Subcommittee and a copy of the draft agenda for the meeting scheduled for March 26th were also attached to the Minutes.

#### \*5. CHANGE OF DAYS FOR ACRS MEETINGS

ACRS/ACNW staff members whose grade level is GG 15-10 are not eligible for either overtime payment or compensatory time for the work performed after their normal work hours (including Saturday ACRS meetings). The ACRS has recently decided to schedule Saturday sessions at every ACRS meeting, at least until the strategic planning sessions are completed. The staff will therefore need to schedule unpaid and paid overtime to support Saturday activity. Increased use of paid overtime to support these mandated Saturday activities will increase the cost of providing support to the Committee beyond what it would be if meetings were scheduled on regular workdays.

The Executive Director has proposed that the Committee schedule its monthly meetings on Wednesday, Thursday, and Friday or on some other combination of three consecutive weekdays. This would provide a better opportunity for the NRC staff participation and would avoid the added costs of regularly scheduled Saturday meetings and the need to compel staff members to work uncompensated overtime.

### Conclusion

The Subcommittee has referred this proposal to the Full Committee for discussion. The Full Committee voted to continue to have Saturday meetings when necessary because the schedules for some members do not permit them to be absent earlier in the week. The Executive Director was asked to explore other options for compensating staff.

#### \*6. FILING OF COMPENSATION CLAIMS

Members are reminded to submit their compensation claims in a timely fashion. To keep our fiscal records as up-to-date as possible, a monthly submission of compensation claims is preferred. Timely submission of claims for payment is needed to ensure that our budget allocations are in conformance with authorized expenditures. Additionally, some specific program areas (e.g., AP600, SBWR) are being closely monitored because of funding limitations.

### Conclusion

The Subcommittee recommended that members submit claims on a monthly basis whenever possible.

#### \*7. HOTEL RESERVATION CANCELLATION POLICY

If the ACRS Program Assistant (Barbara Jo White) makes hotel reservations for members to attend a Full Committee, Subcommittee or Working Group meeting and the meeting is subsequently cancelled, the Program Assistant will automatically cancel those hotel reservations.

However, if a member who is scheduled to attend a particular meeting decides not to attend that meeting due to unavoidable reasons, he should either cancel the hotel reservation or contact Barbara Jo White to cancel the reservation.

#### \*8. CONFLICT-OF-INTEREST

In the future, the Office of Personnel will provide the Summary of Major Ethics Rules for Special Government Employees (SGEs) to all new members.

### Conclusion

The Subcommittee recommended that all members read the Summary as it provides a concise explanation of the rules in this area.

#### \*9. USE OF CONSULTANTS

Due to fiscal and FTE constraints, it is recommended that the use of consultants be limited. Please note that use of the procurement process for other than sole source opportunity will require submission of the names of three experts of equivalent qualifications in the pertinent field(s). The consultants will be selected by the Division of Contracts on a competitive basis.

It is very important that the ACRS staff has adequate time to process any approved requests for new consultants. Allow 30 days for invitational travel, 60-75 days for consultants whose services are procured through the Division of Contracts, and a minimum of 90 days for personal services consultants to be appointed as Special Government Employees, assuming that the consultant promptly and correctly completes and returns all paperwork.

### Conclusion

The Subcommittee recommended that members take note of the above limitations and time constraints.

#### 10. CONTRACTING FOR CONSULTANTS

Members should follow the existing procedures noted below for the use of consultants for ACRS meetings and/or review of documents:

- If a Member wants to use a consultant for a particular meeting, he should ask the cognizant staff engineer to prepare the necessary paperwork for approval by ACRS staff management. The Member should provide the staff engineer with the justification for needing the expertise of that particular consultant. When approval has been obtained, the consultant will be contacted by the staff engineer. The Member cannot make commitments concerning dates or assignments for consultants.
- If a Member wants to use a consultant to review documents prior to a meeting, he should ask the cognizant staff engineer to obtain the approval of ACRS staff management and then contact the consultant. The consultant's report should be made available to the staff engineer at least a week before the meeting so that it can be distributed to the members attending the meeting and considered in the deliberations of that meeting. If the member directly asks the consultant to review documents without prior approval by the ACRS staff management, it will be considered "unauthorized contracting," and the consultant will not be compensated for the time spent in reviewing the documents.

#### Conclusion

The Subcommittee recommended that members take note of the above restrictions.

#### 11. APPOINTMENTS OF CONSULTANTS

In the past, the Vice-Chairman of the Committee was asked to approve hiring of all new consultants. However, Management Directive 10.6 states that the Executive Director approves the initial need and the continuing need for consultants and experts, including the work to be performed. The Executive Director has delegated this authority to the Deputy Executive Director. The Executive Director will be the reviewing official.

#### Conclusion

The Subcommittee recommended that members take note of the above revised procedure.



## 12. AD HOC CONSULTATION PANEL

The Consultation Panel met on February 12, 1996. The Panel agreed that future meetings would be held only when so requested by the Executive Director, ACRS/ACNW.

The Executive Director mentioned that the Members' Handbook will be published and distributed by the end of April.

The Panel discussed whether Members should be provided written guidance on what constitutes "reasonable" for BankCard purchases. The Office of Administration (ADM) and ACRS/ACNW agreed to work together to determine the appropriate ADM employee to approve BankCard purchases for the ACRS Chairman. ACRS/ACNW agreed to work with Information Resources Management to develop a list of preapproved computer hardware and software that can be purchased using the BankCard.

The Executive Director, ACRS/ACNW, reiterated (and the Panel acknowledged) that the "transfer of reimbursements and property management functions to ADM" did not actually result in FTE savings for this office. Rather, these new procedures, especially the BankCard, require even more involvement by ACRS/ACNW staff, increasing the amount of FTE the ACRS/ACNW has had to devote to reimbursement of Members' expenditures.

## 12. MEMBERS' ISSUES

- \*● We have been informed by Patricia Norry, Director, Office of Administration, that she has been advised by the Office of the General Counsel not to issue a letter stating that an office in the home was a legitimate deduction for tax purposes. This advice was based on the opinion that NRC would be infringing on the authority of another Federal agency (the IRS).
- \*● We were informed orally by the Office of the General Counsel that it was not permissible for the Federal government to pay for the installation of ISDN lines for ACRS members. However, the cost of usage of these lines is an acceptable reimbursable expense.

(Update) The OGC letter actually says that ISDN lines may be installed using government funds under certain very restrictive circumstances. ACRS staff is continuing to investigate the possibility of such installation. An ISDN connecting board will be purchased for those Members using a government-owned computer. Members should inform R. Summers if they wish to have an ISDN line and the board.

New Items ● Mr. Carroll raised the issue of use of computers for personal business. Use of government-supplied computers is permitted only for such

things as schedules, calendars, etc. This is delineated in the Members' Handbook.

- Mr. Carroll asked when the Members' Handbook would be issued. The handbook has been sent to the printers and will be available by the end of April.
- Mr. Carroll provided a draft memorandum for signature by Ms. Pat Norry, Director, Office of Administration, concerning the change of policy regarding use of an office in the home. This draft was provided to Ms. Norry.
- Dr. Seale submitted a memorandum for consideration by the full Committee entitled: "Questions to Be Considered in Research Reviews." This memorandum was distributed on March 7, 1996.
- Mr. Lindblad asked that both of the double doors of the meeting room be kept unlocked during open meetings. The ACRS staff will ensure that the doors remain unlocked.

E. Future Meeting Agenda

Appendix IV summarizes the proposed items endorsed by the Committee for the 430th ACRS Meeting, April 11-13, 1996.

The 429th ACRS meeting was adjourned at 1:55 p.m. on Saturday, March 9, 1996.



may be ordered for any or all of the six separate volumes, arranged by State. Subscriptions include an annual edition (issued in January or February) which includes all current general wage determinations for the States covered by each volume. Throughout the remainder of the year, regular weekly updates are distributed to subscribers.

Signed at Washington, DC this 16th day of February 1996.

Philip J. Glass,

Chief, Branch of Construction Wage Determinations.

[FR Doc. 96-3934 Filed 2-22-96; 8:45 am]

BILLING CODE 4010-27-01

## NATIONAL SCIENCE FOUNDATION

### Special Emphasis Panel in Bioengineering and Environmental Systems; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92-463, as amended), the National Science Foundation announces the following meeting.

**Name:** Special Emphasis Panel in Bioengineering and Environmental Systems (No. 1189).

**Date and Time:** March 15, 1996; 8:30 am-5:00 pm.

**Place:** National Science Foundation, 4201 Wilson Boulevard, Room 970, Arlington, VA 22230.

**Type of Meeting:** Closed.

**Contact Person:** Gilbert B. Devey, Program Director, Biomedical Engineering and Research to Aid Persons with Disabilities, Division of Bioengineering and Environmental Systems, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, Telephone: (703) 305-1318.

**Purpose of Meeting:** To provide advice and recommendations concerning proposals submitted to NSF for financial support.

**Agenda:** To review and evaluate proposals as part of the selection process for awards.

**Reason for Closing:** The proposals being reviewed include information of a proprietary or confidential nature, including technical information; financial data, such as salaries; and personal information concerning individuals associated with the proposals. These matters are exempt under 5 U.S.C. 552(b)(4) and (6) of the Government in the Sunshine Act.

**Dated:** February 16, 1996.

M. Rebecca Winkler,

Committee Management Officer.

[FR Doc. 96-3987 Filed 2-22-96; 8:45 am]

BILLING CODE 7550-01-01

### Committee on Equal Opportunities in Science and Engineering; Notice of Meeting

In accordance with the Federal Advisory Committee Act, Public Law 92-463, as amended, the National Science Foundation announces the following meeting:

**Name:** Committee on Equal Opportunities in Science and Engineering (#1173).

**Date and Time:** March 13, 14, 15, 1996; 9:00 to 5:00 Wednesday and Thursday and 9:00 to Noon on Friday.

**Place:** Room 1235, National Science Foundation, 4201 Wilson Blvd., Arlington, VA.

**Type of Meeting:** Open.

**Contact Person:** Sue Kematzer, Executive Secretary, Room 585, NSF, 4201 Wilson Blvd., Arlington, Va. 22230. Phone (703) 305-1382.

**Minutes:** May be obtained from the contact person at the above address.

**Purpose of Meeting:** To advise NSF on policies and activities of the Foundation to encourage full participation of women, minorities, and persons with disabilities currently underrepresented in scientific, engineering, professional, and technical fields and to advise NSF concerning implementation of the provisions of the Science and Engineering Equal Opportunities Act.

**Agenda:** To discuss national policy issues, including the importance of science and engineering to the national interest; overview of the areas of Social, Behavioral, and Economic Sciences; the Computer and Information Science and Engineering; and the Education and Human Resources; and update from the affirmative action task force.

**Dated:** February 20, 1996.

M. Rebecca Winkler,

Committee Management Officer.

[FR Doc. 96-4103 Filed 2-22-96; 8:45 am]

BILLING CODE 7550-01-01

## NUCLEAR REGULATORY COMMISSION

### Advisory Committee on Reactor Safeguards; Meeting Notice

In accordance with the purposes of Sections 29 and 182b. of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards will hold a meeting on March 7-9, 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, March 7, 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.-10:00 A.M.: *Regulatory Guidance Documents Related to Digital Instrumentation and Control Systems* (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding proposed Regulatory Guides, Standard Review Plan Sections, and Branch Technical Positions related to digital instrumentation and control systems.

Representatives of the nuclear industry will participate, as appropriate.

10:15 A.M.-11:45 A.M.: *Reactor Vessel Annealing* (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and the Department of Energy (DOE) regarding the details of the DOE pilot projects for annealing reactor vessels.

Representatives of the nuclear industry will participate, as appropriate.

11:45 A.M.-12:15 P.M.: *Adequacy of Individual Plant Examinations (IPEs)* (Open)—The Committee will continue its discussion with representatives of the NRC staff regarding the IPE review process and findings.

Representatives of the nuclear industry will participate, as appropriate.

1:15 P.M.-2:45 P.M.: *Applicability of RELAP5/MOD3 Code for the AP600 Design* (Open/Closed)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and its consultants regarding the staff program to evaluate the applicability of the RELAP5/MOD3 Code to perform accident/transient analyses of the AP600 design.

A portion of this session may be closed to discuss Westinghouse proprietary information applicable to this matter.

2:45 P.M.-3:45 P.M.: *Fire Protection Issues* (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and its consultants regarding a PRA model associated with the risk of fires during a self-induced station blackout and scoping analyses to evaluate the effectiveness of degraded-fire barriers in mitigating the consequences of a fully developed fire.

Representatives of the nuclear industry will participate, as appropriate.

4:00 P.M.-4:45 P.M.: *Report of the Planning and Procedures Subcommittee* (Open/Closed)—The Committee will hear a report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS

business, and organizational and personnel matters relating to the ACRS staff.

A portion of this session may be closed to discuss the qualification of candidates nominated for appointment to the ACRS, 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.

**4:45 P.M.-7:00 P.M.: Preparation of ACRS Reports (Open)**—The Committee will discuss proposed ACRS reports on matters considered during this meeting as well as proposed reports on Resolution of Multiple System Responses Program (MSRP) issues, and on Conformance of Operating Plants to NRC Safety Goals.

**Friday, March 8, 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.-9:45 A.M.: Probabilistic Risk Assessment (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff and its consultants regarding the PRA framework document, its relationship to pilot applications, and the use of PRA in the regulatory decision-making process.

Representatives of the nuclear industry will participate, as appropriate.

**9:45 A.M.-10:15 A.M.: Resolution of Generic Safety Issue 78, Monitoring of Fatigue Transient Limits for the Reactor Coolant System (Open)**—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the measures taken to correct an error in the PRAISE Code, which was used to verify the results of a parametric study on risk associated with fatigue failure of primary coolant pressure boundary components.

**10:30 A.M.-11:00 A.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.

**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. These responses are

expected to be received from the EDO before the meeting.

**11:15 A.M.-12:15 P.M.: Preparation of ACRS Reports (Open)**—The Committee will discuss proposed ACRS reports on matters considered during this meeting as well as proposed report on Resolution of the Multiple System Responses Program (MSRP) issues, and on Conformance of Operating Plants to NRC Safety Goals.

**1:15 P.M.-7:00 P.M.: Preparation of ACRS Reports (Open)**—The Committee will continue its discussion of proposed ACRS reports on matters considered during this meeting as well as the proposed reports on other matters noted above.

**Saturday, March 9, 1996**

**8:30 A.M.-12:00 Noon: Preparation of ACRS Reports (Open)**—The Committee will continue its discussion of proposed ACRS reports on matters considered during this meeting as well as the proposed reports on other matters noted above.

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) Public Law 92-463, I have determined that it is necessary to close portions of this meeting noted above to discuss matters that relate solely to the internal personnel rules and practices of this Advisory Committee per 5 U.S.C.

552b(c)(2), to discuss Westinghouse proprietary information per 5 U.S.C. 552b(c)(4), and to discuss matters the release of which would constitute a clearly unwarranted invasion of personal privacy per 5 U.S.C. 552b(c)(6).

Further information regarding topics to be discussed; whether the meeting has been 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. EST.

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) 303-9672; the local direct dial number is 703-321-3339.

Dated: February 16, 1996.

John C. Heyle.

Acting Advisory Committee Management Officer.

[FR Doc. 96-4058 Filed 2-22-96; 8:45 am]

BILLING CODE 7000-01-P

## RAILROAD RETIREMENT BOARD

### Proposed Collection; Comment Request

**SUMMARY:** In accordance with the requirement of Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 which provides opportunity for public comment on new or revised data collections, the Railroad Retirement Board (RRB) will publish periodic summaries of proposed data collections.

**Comments are invited on:** (a) Whether the proposed information collection is necessary for the proper performance of the functions of the agency, including whether the information has practical utility; (b) the accuracy of the RRB's estimate of the burden of the collection of the information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden related to the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

### Title and Purpose of Information Collection

Financial Disclosure Statement: OMB 3220-0127

Under Section 10 of the Railroad Retirement Act and Section 2(d) of the Railroad Unemployment Insurance Act, the RRB may recover overpayments of



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

February 28, 1996 - REVISED

SCHEDULE AND OUTLINE FOR DISCUSSION  
429th ACRS MEETING  
MARCH 7-9, 1996

Thursday, March 7, 1996, Conference Room 2B3, Two White Flint North,  
Rockville, Maryland

1) 8:30 - 8:<sup>50</sup>~~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:<sup>50</sup>~~45~~ - 10:<sup>15</sup>~~00~~ A.M.  
TAB 2.....

Regulatory Guidance Documents Related to  
Digital Instrumentation and Control Systems  
(Open) (DWM/MTM)

- 2.1) Remarks by the Subcommittee Chairman
- 2.2) Briefing by and discussions with  
representatives of the NRC staff  
regarding proposed Regulatory Guides,  
Standards Review Plan Sections, and  
Branch Technical Positions related to  
Digital Instrumentation and Control  
Systems.

Representatives of the nuclear industry will  
participate, as appropriate.

10:<sup>15</sup>~~00~~ - 10:<sup>32</sup>~~15~~ A.M.

BREAK

3) 10:<sup>32</sup>~~15~~ - 11:<sup>00</sup>~~45~~ A.M.  
TAB 3.....

Reactor Vessel Annealing (Open) (WJS/NFD)

- 3.1) Remarks by the Subcommittee Chairman
- 3.2) Briefing by and discussions with  
representatives of the Department of  
Energy (DOE) regarding the details  
of the DOE pilot projects for anneal-  
ing.

Representatives of the NRC staff and nuclear  
industry will participate, as appropriate.

[ TRANSCRIBED PORTIONS THE MEETING ]

4) 11:40<sup>0</sup> - 12:15<sup>30</sup> P.M.  
TAB 4.....

Adequacy of Individual Plant Examinations (IPES) (Open) (GA/MME)

- 4.1) Remarks by the Subcommittee Chairman
- 4.2) Discussions with representatives of the NRC staff regarding the IPE review process and findings.

Representatives of the nuclear industry will participate, as appropriate.

12:15<sup>30</sup> - 1:15 P.M.

LUNCH

5) 1:15 - 2:45<sup>3:00</sup> P.M.

Applicability of RELAP5/MOD3 Code for the AP600 Design (Open/Closed) (IC/PAB)

- 5.1) Remarks by the Subcommittee Chairman
- 5.2) Briefing by and discussions with representatives of the NRC staff and its consultants regarding the staff program to evaluate the applicability of the RELAP5/MOD3 Code to perform accident/transient analyses of the AP600 design.

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

6) 2:45<sup>3:00</sup> - 3:45<sup>4:15</sup> P.M.  
TAB 6.....

Fire Protection Issues (Open) (IC/AS)

- 6.1) Remarks by the Subcommittee Chairman
- 6.2) Briefing by and discussions with representatives of the NRC staff and its consultants regarding a PRA model associated with the risk of fires during a self-induced station blackout and scoping analyses to evaluate the effectiveness of degraded-fire barriers in mitigating the consequences of a fully developed fire.

4:15<sup>3:35</sup> - 4:00<sup>35</sup> P.M.

BREAK



7) 4:<sup>35</sup>~~00~~ - 4:<sup>25</sup>~~45~~ 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 staff members.

[Note: A portion of this session may be closed to discuss qualifications of candidates nominated for appointment to the ACRS, 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.]

Break

6:25 - 6:35 p.m.  
8) 6:<sup>35</sup>~~45~~ - 7:<sup>20</sup>~~00~~ P.M.

Preparation of ACRS Reports (Open)  
Discussion of proposed ACRS reports on:  
8.1) Adequacy of proposed ACRS reports on:  
Examinations (IPEs) (GA/MME)  
8.2) FRA Fire Model, and Scoping Analyses  
Associated with Degraded-Fire  
Barriers (IC/AS)  
8.3) NRC Staff Program to Evaluate the  
Applicability of RELAP5/MOD3 Code  
for the AP600 Design (IC/PAB)  
8.4) Resolution of the Multiple System  
Responses Program (MSRP) issues  
(CJW/MME/AWC)  
8.5) Regulatory Guidance Documents Related  
to Digital Instrumentation and  
Control Systems (DWM/MTM)  
8.6) Conformance of Operating Plants to  
NRC Safety Goals (TSK/RRS/NFD)

Friday, March 8, 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:<sup>43</sup>~~30~~ A.M.

TAB 10.....

Probabilistic Risk Assessment (Open)  
(GA/MTM)

- 10.1) Remarks by the Subcommittee Chairman
- 10.2) Briefing by and discussions with representatives of the NRC staff and its consultants regarding the PRA framework document, its relationship to pilot applications, and the use of PRA in the regulatory decision-making process.

Representatives of the nuclear industry will participate, as appropriate.

10:<sup>43</sup>~~30~~ - 11:<sup>00</sup>~~45~~ A.M.

BREAK

11) 11:<sup>00</sup>~~45~~ - 11:<sup>40</sup>~~15~~ A.M.

TAB 11.....

Resolution of Generic Safety Issue 78.  
Monitoring of Fatigue Transient Limits  
for the Reactor Coolant System (Open)  
(RLS/DAP/NFD)

- 11.1) Remarks by the Subcommittee Chairman
- 11.2) Briefing by and discussions with representatives of the NRC staff regarding the measures taken to correct an error in the PRAISE Code, which was used to verify the results of a parametric study on risk associated with fatigue failure of primary coolant pressure boundary components.

12) 11:<sup>40</sup>~~15~~ - 12:<sup>40</sup>~~45~~ A.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.

13) 11:<sup>37</sup>~~45~~ - 12:<sup>45</sup>~~00~~ Noon

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.

12:<sup>40</sup>~~00~~ N - 1:<sup>37</sup>~~00~~ P.M.

LUNCH

- 14) 1:<sup>45</sup>~~00~~ - 7:00 P.M. Preparation of ACRS Reports (Open)  
 Discussion of proposed ACRS reports on:
- 14.1) PRA Fire Model, and Scoping Analyses Associated with Degraded-Fire Barriers (IC/AS)
  - 14.2) NRC Staff Program to Evaluate the Applicability of RELAP5/MOD3 Code for the AP600 Design (IC/PAB)
  - 14.3) Resolution of the Multiple System Responses Program (MSRP) issues (CJW/MME/AWC)
  - 14.4) Resolution of Generic Safety Issue 78, Monitoring of Fatigue Transient Limits for the Reactor Coolant System (RLS/DAP/NFD)
  - 14.5) Adequacy of Individual Plant Examinations (IPes) (GA/MME)
  - 14.6) Conformance of Operating Plants to NRC Safety Goals (TSK/RRS/NFD)
  - 14.7) Regulatory Guidance Documents related to Digital Instrumentation and Control Systems (DWM/MTM)
  - 14.8) PRA Framework Document and Use of PRA in the Regulatory Process (tentative) (GA/MTM)

Saturday, March 9, 1996, Conference Room 2B3, Two White Flint North, Rockville, Maryland

- 8:35 - 9:20 A.M. Discussion of new members - CLOSED
- 15) ~~8:30~~ - ~~12:00~~ Noon Preparation of ACRS Reports (Open)  
 9:20 - 1:50 P.M. Continue discussion of proposed ACRS reports identified under Item 14.
- 11:15 - 11:30 A.M. BREAK
- 1:50 - 1:55 P.M. RESEARCH

**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.

ADJOURNED 1:55 P.M.



# APPENDIX III: MEETING ATTENDEES

429TH ACRS MEETING  
MARCH 7-9, 1996

## NRC STAFF

Jim Stewart	NRR
Robert Brill	RES
J. Kramor	RES
E. Lee	NRR
B. Boger	NRR
L. Soffer	EDO
K. Nichman	EMEB
J. F. Costello	RES
Andrea Lee	NRR
Shah Malik	RES
Michael Mayfield	RES
Bill Hoffman	NRR
Wayne Hodges	RES
Mike Cheek	DSSA
M. Vassilaros	RES
Mark Reinhart	NRR
Farouk Eltawila	RES
Marino Dimerzo	RES
F. Odar	RES
Pat Madden	NRR
C. McCarcken	NRR
Steven West	NRR
Stephen Dinsmore	NRR
J. S. Hyslop	RES
J. Murphy	RES
S. E. Mays	AEOD/RRAB
T. Fuchigami	NRR
John Austin	NMSS/DWM
C. E. Rossi	AEOD/SPD
Bob Gramm	NRR
Stephen Dinsmore	NRR
Suzanne Black	NRR
J. Murphy	RES
L. Soffer	EDO
Charles Serpan	RES
Michel Labatut	NRR
Johne Fair	NRR
Michael Mayfield	RES
Craig Hrabal	RES
Debbie Jackson	RES
Frank Orr	NRR
Jason Schaperow	RES

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

Garbo Toth	OSU
Andrew Kaffman	OSU
yungang Cai	OSU
Jeffrey Fluhair	OSU
Laurian Dinca	OSU
Atheia Wyche	SERCH Licensing/Bechtel
Ted Quinn	NR Engineering
Dennis Lawrence	LLNL
Gary Johnson	LLNL
John Scott	LLNL
Bill Sun	Sunutech, INC., Los Altos, Ca
Frank Quinn	Scientech
Fariol Zibria	NUS
Kurt Cozens	NEI
Earol Vahtgugh	DOE
Dennis L. Harrison	DOE
Robert H. Stefle	MPR
David Howell	Westinghouse
John Warren	DOE
Lynn Cannon	Self
James T. Nakos	DOE
Roger W. Huston	TVA
Theresa Sutler	Bechtel
Sanjoy Baneyee	Univ. Of California
J. M. Kelly	INEL
D. E. Palmrose	INEL
T. K. Lavsory	INEL
George Wis	NEL
Jim Higgins	Brookhaven National Lab
Dana Kelly	INEL
Tony Pietrangelo	NEI
Millrd Wohl	NRR
C. Holden	NRR
R. Wessman	NRR
Theres Sutter	Bechtel
Adrian Meymes	NEI
Jim Meyer	Scientech
Farid Zikrin	NUS

#### APPENDIX IV: FUTURE AGENDA

The Committee agreed to consider the following during the 430th ACRS Meeting, April 11-13, 1996:

Revised  
March 25, 1996

#### SCHEDULE AND OUTLINE FOR DISCUSSION 430th ACRS MEETING APRIL 11-13, 1996

Thursday, April 11, 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 - 10:45 A.M. Proposed Final Revisions to 10 CFR Part 50, and 10 CFR Part 100, "Reactor Site Criteria" (Open) (WJL/AS)
  - 2.1) Remarks by the Subcommittee Chairman
  - 2.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed final revisions to 10 CFR Part 50 and 10 CFR Part 100, new Appendix S to Part 50 and associated Regulatory Guides and Standard Review Plan sections. These proposed revisions include relocation of plant design criteria, and source term and dose calculations from 10 CFR Part 100 to 10 CFR Part 50.

Representatives of the nuclear industry will participate, as appropriate.
  
- 10:45 - 11:00 A.M. BREAK
  
- 3) 11:00 - 12:30 P.M. Severe Accident Research (Open) (MHF/NFD)
  - 3.1) Remarks by the Subcommittee Chairman
  - 3.2) Briefing by and discussions with representatives of the NRC staff

regarding the domestic and foreign research activities in the severe accident area, NRC severe accident codes (e.g., MELCOR, SCDAP/RELAP5, CONTAIN, and VICTORIA), and related matters.

Representatives of the nuclear industry will participate, as appropriate.

12:30 - 1:30 P.M.

LUNCH

4) 1:30 - 3:00 P.M.

Graded Quality Assurance Program (Open)  
(CJW/MME)

- 4.1) Remarks by the Subcommittee Chairman
- 4.2) Briefing by and discussions with representatives of the NRC staff regarding the Graded Quality Assurance Program and related matters.

Representatives of the nuclear industry will participate, as appropriate.

3:00 - 3:15 P.M.

BREAK

5) 3:15 - 4:30 P.M.

Westinghouse COBRA/TRAC Best-Estimate ECCS Thermal Hydraulic Code (Open/Closed)  
(IC/PAB)

- 5.1) Remarks by the Subcommittee Chairman
- 5.2) Briefing by and discussions with representatives of the Westinghouse Electric Corporation and the NRC staff regarding response to ACRS concerns related to the Westinghouse COBRA/TRAC Best-Estimate ECCS Thermal Hydraulic Code.

[Note: A portion of this session may be closed to discuss Westinghouse proprietary information applicable to this matter]

6) 4:00 - 7:00 P.M.

Preparation of ACRS Reports (Open)

Discussion of proposed ACRS reports on:

- 6.1) Proposed Final Revisions to 10 CFR Part 50, and 10 CFR Part 100, Reactor Site Criteria (WJL/AS)

- 6.2) Severe Accident Research (MHF/NFD)
- 6.3) PRA Framework Document and next step to expand the Use of PRA in the Regulatory Process (GA/MTM)
- 6.4) Resolution of the Multiple System Responses Program (MSRP) Issues (CJW/MME/AWC)
- 6.5) Westinghouse COBRA/TRAC Best-Estimate ECCS Thermal Hydraulic Code (IC/PAB)

Friday, April 12, 1996, Conference Room 2B3, Two White Flint North, Rockville, Maryland

- 7) 8:30 - 8:35 A.M. Opening Remarks by the ACRS Chairman (Open)  
(TSK/SD)
- 8) 8:35 - 10:00 A.M. Meeting with the Director of the NRC Office for Analysis and Evaluation of Operational Data (AEOD) (Open) (TSK/MME)
  - 8.1) Remarks by the ACRS Chairman
  - 8.2) Briefing by and discussions with Mr. Edward Jordan, AEOD Director, on items of mutual interest, including:
    - AEOD activities associated with the development of risk-informed and performance-based regulations
    - Risk-Based Performance Indicators
    - AEOD study on spent fuel pools
    - Recent interaction with INPO (training, event analysis, etc.)
    - Update on Technical Training Center programs, e.g., Digital I&C, and specialized training of inspection personnel in support of current risk-based methods applications:
      - Implementation of Maintenance Rule
      - In-service Inspection
      - In-service Testing
- 10:00 - 10:15 A.M. BREAK
- 9) 10:15 - 11:15 A.M. Spent Fuel Project Office Activities (Open) (TSK/NFD/RS)



- 9.1) Report by the Subcommittee Chairman concerning the matters discussed during the March 26, 1996 Joint ACRS/ACNW Subcommittee meeting, including the Spent Fuel Project Office activities, decommissioning, and health effects of low-level radiation.
- 9.2) Briefing by and discussions with representatives of the NRC staff regarding activities of the Spent Fuel Project Office, including the proposed Standard Review Plan for dry cask storage systems.

10) 11:15 - 12:15 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 staff.

[Note: A portion of this session may be closed to discuss qualifications of candidates nominated for appointment to the ACRS, 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.]

12:15 - 1:15 P.M.

LUNCH

11) 1:15 - 1:45 P.M.

Use of RuleNet in the Rulemaking Process  
(Open) (RLS/NFD)

- 11.1) Remarks by the Subcommittee Chairman
- 11.2) Briefing by and discussions with representatives of the Nuclear Energy Institute regarding the experience gained through the use of RuleNet in the rulemaking process.

Representatives of the NRC staff will participate, as appropriate.

- 12) 1:45 - 2:15 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.
- 13) 2:15 - 2:30 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.
- 2:30 - 2:45 P.M. BREAK
- 14) 2:45 - 7:00 P.M. Preparation of ACRS Reports (Open)  
Discussion of proposed ACRS reports on:
- 14.1) Proposed Final Revisions to 10 CFR Part 50, and 10 CFR Part 100, Reactor Site Criteria (WJL/AS)
  - 14.2) Severe Accident Research (MHF/NFD)
  - 14.3) PRA Framework Document and next step to expand the Use of PRA in the Regulatory Process (GA/MTM)
  - 14.4) Resolution of the Multiple System Responses Program (MSRP) Issues (CJW/MME/AWC)
  - 14.5) Westinghouse COBRA/TRAC Best-Estimate Thermal Hydraulic Code (IC/PAB)
  - 14.6) Standard Review Plan for Dry Cask Storage Systems (tentative) (TSK/NFD/RS)

Saturday, April 13, 1996, Conference Room 2B3, Two White Flint North, Rockville, Maryland

- 15) 8:30 - 11:30 A.M. Preparation of ACRS Reports (Open)  
Continue discussion of proposed ACRS reports identified under Item 14.
- 11:30 - 11:45 A.M. BREAK
- 16) 11:45 - 1:00 P.M. Strategic Planning (Open) (TSK/JTL)  
Discussion of items of significant

importance to NRC, including rebaselining of the Committee activities for FY 96-97.

- NOTE:
- Presentation time should not exceed 50 percent of the total time allocated for a specific item. The remaining 50 percent of the time is reserved for discussion.
  - Number of copies of the presentation materials to be provided to the ACRS - 35.

APPENDIX V  
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE

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

MEETING HANDOUTS

AGENDA

DOCUMENTS

ITEM NO.

- 1     Opening Remarks by the ACRS Chairman
  1.   Introductory Statement of the ACRS Chairman, dated March 7-9, 1996. [Handout]
  2.   Memorandum from Dr. Robert Seale to Dr. T.S. Kress, dated March 6, 1996: "Questions to be Considered in Research Reviews." [Handout]
- 2     Regulatory Guidance Documents Related to Digital Instrumentation and Control Systems
  3.   Standard Review Plan Update, presented by Matthew Chiramal, Senior Level Advisor on Digital Technology, Office of Nuclear Reactor Regulation, Instrumentation and Control Branch, dated March 7, 1996 [Viewgraphs]
  4.   Regulatory Guides for Software Standards presented by John A. Scott, Lawrence Livermore National Laboratory, dated March 7, 1996 [Viewgraphs]
- 3     Reactor Vessel Annealing
  5.   Overview of DOE Annealing Projects, presented by D. Harrison, DOE, dated March 7, 1996. [Viewgraphs]
  6.   ADP Heating Methods and Monitoring of Components, presented by Jim Nakos, SNL, dated March 7, 1996. [Viewgraphs]
- 5     Applicability of RELAP5/MOD3 Code for the AP600 Design
  7.   RELAP5/MOD3 Adequacy Demonstration for AP600 Application, presented by Farouk Eltawila, dated March 7, 1996. [Viewgraphs]
  8.   ALWR Model Development, presented by J.M. Kelly, Idaho National Engineering Laboratory, dated March 7, 1996. [Viewgraphs]

9. Top-Down Scaling Studies Related to AP600 Facilities, presented by Sanjoy Banerjee, dated March 7, 1996. [Viewgraphs] Proprietary Information - Not to be released Without Prior Approval.
10. NRC-RES Program: Applicability of RELAP5 Code for AP600 Analysis: Project Status Report and Attachments. [Handout dated March 7, 1996]  
Attachments:
  - a) Letter from T.S. Kress, Chairman, ACRS, to James M. Taylor, Executive Director for Operations, dated April 12, 1995: NRC Test and Analysis Program in Support of AP600 Advanced Light Water Passive Plant Design Review.
  - b) Letter from James M. Taylor, Executive Director for Operations, to T.S. Kress, Chairman, ACRS, dated May 8, 1995: Staff Response to ACRS Letter Dated April 12, 1995, on NRC Test and Analysis Program in Support of AP600 Advanced Light Water Passive Plant Design Reviews.
  - c) Memorandum from M. Wayne Hodges, Office of Nuclear Reactor Research, to John Larkins, Executive Director, ACRS, dated January 22, 1996: Staff Presentation to the ACRS Subcommittee on Thermal Hydraulic Phenomena February 22-23, 1996, on the RELAP5 Adequacy Assessment in Support of AP600 Advanced Light Water Passive Plant Design Reviews.
  - d) Memorandum from V.K. Dhir, Consultant, to Dr. Ivan Catton, Chair, Thermal Hydraulics Subcommittee, ACRS, dated February 20, 1996: Review of Material Provided in Support of the Thermal Hydraulic Sub-Committee (sic) Meeting on Acceptability of the RES Approach to Assess the Adequacy of RELAP5 Code for Analysis of Small Break LOCA in AP600.
  - e) Memorandum from Virgil E. Schrock, Consultant, to Dr. Ivan Catton, Chairman, Subcommittee on Thermal Hydraulic Phenomena, ACRS, dated February 14, 1996: Review of Material Distributed for T/H Subcommittee Meeting, February 22-23, 1996, at INEL.
  - f) Letter from Neil E. Todders, Energy Technology Applications, Inc., to Farouk Eltawila, Office of Nuclear Reactor Research, dated February 1, 1996: AP600 Thermal Hydraulic Experts Meeting, January 16 & 17, 1996.
11. Report of ACRS Consultant N. Zuber, dated March 1, 1996: "NRC/RES AP600 Research Program Review Meeting, Idaho National Engineering Laboratory on February 22-23, 1996 and Minutes of the ACRS Thermal Hydraulic Subcommittee, February 22-23, 1996, Idaho Falls, Idaho. [Handout] Includes Proprietary Information - Not to be released Without Prior Approval.



6     Fire Protection Issues

- 12.   Fire Protection Issues, presented by Steven West, NRR, dated March 7, 1996. [Viewgraphs]
- 13.   Electrical Load Management Practices During Post-Fire Alternative Shutdown, presented by Jim Higgins, dated March 7, 1996. [Viewgraphs]

7     Report of the Planning and Procedures Subcommittee

- 14.   Final Draft Minutes of Planning and Procedures Subcommittee Meeting - March 6, 1996 [Handout #7.1]

10    Probabilistic Risk Assessment

- 15.   Risk-Informed Performance-Based Regulation, Presented by Edward J. Butcher et.al., dated March 8, 1996.

12    Future ACRS Activities

- 16.   Future ACRS Activities - 430th ACRS Meeting, April 11-13, 1996 [Handout #8-1]

13    Reconciliation of ACRS Comments and Recommendations

- 17.   Reconciliation of ACRS Comments and Recommendations [Handout #13.1]

MEETING NOTEBOOK CONTENTS

TAB

DOCUMENTS

2. Regulatory Guidance Documents Related to Digital Instrumentation and Control Systems

1. Table of Contents
2. Proposed Schedule
3. Project Status Report, dated February 7, 1996 [Internal Committee Use Only: Predecisional Material Attached]
4. Letter from James M. Taylor, Executive Director for Operations, to Chairman Jackson, NRC: "Improvements Associated with Managing the Utilization of probabilistic Risk Assessment (PRA) and Digital Instrumentation and Control Technology," dated January 3, 1996.
5. Letter from Chairman Jackson, NRC, to James M. Taylor, Executive Director for Operations: "Follow-up Requests in Probabilistic Risk Assessment and Digital Instrumentation and Control," dated November 30, 1995.
6. Revised Schedule - Chapter 7 SRP
7. SRP Review Schedule
8. SRP Chapter 7 Update (graphic)

3. Reactor Vessel Annealing

9. Table of Contents
10. Agenda
11. Status Report, dated March 7, 1996
12. Selected Slides from January 18, 1996, presentation by Ajoy Moonka, Sandia National Laboratories at the Marble Hill RPV Annealing Demonstration Project (ADP) Steering Committee Meeting: "DOE's Reactor Pressure Vessel Annealing Program."
13. Agenda for MPR ADP Steering Committee Meeting, dated November 2, 1995.
14. Selected Slides from November 2, 1995, presentation by Michael Rogov, MOHT, to the ADP Steering Committee: "Furnace Conceptual Design."
15. Selected Slides from July 24, 1995, presentation by Lee Tunon-Sanjur, Westinghouse, to the NRC: "Palisades Reactor Vessel Annealing Thermal/Stress Analysis Plan."

5 Applicability of RELAP5/MOD3 Code for the AP600 Design

16. Table of Contents
17. Tentative Schedule
18. Project Status Report, dated March 7, 1996
19. Staff Requirements Memorandum, from John C. Hoyle,

Secretary, NRC, to John T. Larkins, Executive Director, ACRS.

20. Generic Letter 88-20, dated November 23, 1995: "Individual Plant Examination for Severe Accident Vulnerabilities - 10 CFR 50.54(f)."

6 Fire Protection Issues

21. Table of Contents
22. Agenda
23. Status Report, dated March 7, 1996
24. Memorandum from James M. Taylor, Executive Director for Operations, to the NRC Commissioners, dated September 20, 1995: "Semiannual Report on the Status of the Thermo-Lag Action Plan."
25. Brookhaven National Laboratory Draft Technical Letter Report, dated May 30, 1995: "Risk Evaluation of the Response of PWRs to Severe Fires in Critical Locations."
26. Brookhaven National Laboratory Final Draft Technical Evaluation Report, dated November 21, 1995: "A Risk-Based Approach for Evaluation of Fire Mitigation Features in Nuclear Power Plants."

11 Resolution of Generic Safety Issue 78, Monitoring of Fatigue Transient Limits for the Reactor Coolant System

27. Table of Contents
28. Projected Schedule
29. Project Status Report, dated February 8, 1996
30. Staff Requirements Memorandum from J. Hoyle, NRC Secretary, to John T. Larkins, Executive Director, ACRS, dated December 27, 1995.
31. Staff Requirements Memorandum from Andrew Bates, NRC Secretary, to File dated June 16, 1995.
32. Letter from James L. Milhoan, Deputy Executive Director for Nuclear Reactor Regulation, to William H. Rasin, Nuclear Energy Institute (NEI), dated February 6, 1996: "Improving the Regulatory Process through Risk-Based and Performance-Based Regulation."
33. Letter from James M. Taylor, Executive Director for Operations, to Chairman Jackson, NRC, dated January 3, 1996: "Improvements Associated with Managing the Utilization of Probabilistic Risk Assessment (PRA) and Digital Instrumentation and Control Technology."
34. Letter from Chairman Jackson, NRC, to James M. Taylor, Executive Director for Operations, dated November 30, 1995: "Follow-Up Requests in Probabilistic Risk Assessment and Digital Instrumentation and Control Technology."
35. SECY-95-280, dated November 27, 1995: Framework for

- Applying Probabilistic Risk Analysis in Reactor Regulation."
36. Letter from William H. Rasin, NEI, to James L. Milhoan, Deputy Executive Director for Nuclear Reactor Regulation, dated November 14, 1995, Draft Report: "Improving the Regulatory Process through Risk-Based and Performance-Based Regulation."
  37. Note from George Apostolakis to NRC staff for PRA Subcommittee Meeting on January 10-11, 1996.