Attachment 2

ACRS SUMMARY MATRIX OF 1999 LETTERS AND OUTCOMES

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
NFPA 805, "Performance- Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" 2/18/99.	The ACRS stated that the draft Standard was not a distinct, risk-informed, performance-based alternative to the existing fire protection requirements. The ACRS recommended that the staff consider initiating work on an alternate rule that is distinctly performance-based and makes good use of risk information.	Overall, the EDO agreed with the Committee's comments on NFPA 805. The staff provided a copy of the ACRS report to the NFPA Technical Committee on Nuclear Facilities, which is developing the Standard. The staff believes that NFPA 805 when completed will be an acceptable risk-informed, performance-based alternative.	Timely.	The EDO has agreed with the Committee's comments. NEPA is considered the ACRS comments in the revision of the Standard.	Follow the work on this issue and discuss in CY 2000.

The information provided in the "main message" and "EDO/Commission Response" columns is intended to summarize the content of the associated documents. The reader should refer to the documents for more detail.

SECY-98-244, "NRC Human Performance Plan" (HPP) 2/19/99.	The ACRS stated (1) that well-planned research effort is needed to support the transition to risk-informed, performance-based regulations, (2) that the NRC staff has formulated a disciplined strategy for developing a better HPP, (3) expressed an interest in continued dialogue with the staff, and (4) provided comments on staff's proposal. The ACRS recommended specific steps for completion of the development of the HPP.	The EDO was responsive to the ACRS comments and stated that the staff would schedule additional discussions with the ACRS.	Timely. The report was issued on a schedule that provided meaningful input into the staff's work. Review of the SECY had to be deferred from 4 months to provide resources for higher priority work.	ACRS input is being incorporated into the development of a revised HPP.	Follow the progress of the staff's work and review the next revision of the HPP.
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ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
List of Questions to be Addressed for Possible Resolution of Key Issues Associated with the Proposed Revision to 10 CFR 50.59 (Changes, Tests and Experiments) 2/18/99.	The ACRS provided questions related to (1) reconciliation of differences between 10 CFR 50.59 and NEI 96-07 and (2) consideration of safety margin and definition of the term "change." This activity was in response to a Commission request to provide a list of questions that, if answered, would aid in the resolution of key issues		Timely. During the February 1999 ACRS meeting, the Commission requested the Committee to provide a list of questions which, if answered, would aid in the resolution of key issues. The Committee provided the list of questions during the same meeting.		
	associated with the near-term revision of 10 CFR 50.59.				

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Resolution of GSI B-61, "Allowable ECCS Equipment Outage Periods" 2/19/99.	The ACRS agreed with the staff proposal to close out GSI B-61, given that concerns identified under this GSI will be addressed through implementation of the Maintenance Rule. The ACRS noted that the results of the staff analyses of the four representative plants were not compared to results in the IPE insights report and that the uncertainties in the staff analysis were not evaluated.	The EDO stated that comparison to the IPE insights report would not be a prudent use of resources, but that the ACRS comments on the staff's regulatory analysis would be considered in the staff's reevaluation of the generic issues process.	Timely. Review completed in accordance with NRC's commitment to Congress.	The ACRS agreed with the staff's proposal to close out GSI B-61.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed	The ACRS stated	The EDO generally	Timely. Review	To be determined.	The Committee
Improvements to the NRC Inspection and Assessment Program 2/23/99.	that (1) the process outlined in SECY-99-007 represents a substantial positive step; (2) program objectives should be clearly formulated; and (3) the choice of thresholds for increased NRC attention should be made consistent with the definition of objectives. The ACRS expressed a concern as to the limitations of a 6-month pilot program and the potential for ratcheting of performance expectations.	disagreed with the points made in the Committee's letter. Committee was dissatisfied with EDO's response and decided to revisit its concerns during future discussions of the revised inspection and assessment program.	completed in accordance with EDO and Commission schedules.	To be determined.	decided to continue its review of this matter during the May 5-8, 1999 ACRS meeting. The Committee was tasked with reviewing the use of performance indicators and the significant determination process in an April 5, 2000 SRM.

Rule - Revisions to 10 CFR Parts 50, 52, and 72: Requirements Concerning Changes, Tests and Experiments" 3/22/99. Rule - Revisions to proposed changes to 10 CFR 50.59 largely codified past practices and supported completion of the proposed rulemaking. However, the EDO did not address as to the shift in the supported the EDO and Commission schedules for resolution of this issue.	uted to the ion of issues I to the

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Lessons Learned From the ACRS Review of the AP600 Design 3/22/99.	The ACRS provided comments on the need for (1) improved document quality and timely submittals; (2) improved SER discussions of the technical rationale; (3) improvement of T/H codes; (4) improved guidance for scaling and use of test data; (5) guidelines for control room staffing levels; (6) improved understanding of the licensing basis criteria for in-vessel core debris retention; and (7) improved standards for catalytic hydrogen recombiners.	The EDO provided a detailed discussion of the ACRS comments. The EDO disagreed with the ACRS as to the need for Item (7).	Work on this report was deferred to provide resources to work on tasks in the CTM. The staff had already approved the use of PARs before the ACRS recommended against approval.	The staff agreed with the ACRS comments expect that associated with qualification lists for PARs.	Continue review of the requirements for PARs.

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Proposed Amendment to 10 CFR 50.72, Immediate Notification and 50.73, Licensee Event Reporting System 3/23/99.	The ACRS provided four recommendations and recommended issuance for public comment.	The EDO addressed and solicited public comments on ACRS recommendations.	Timely.	The staff was responsive to ACRS input.	Review the proposed final amendment at a future meeting.
Guidance Memorandum for Implementation of the Revised Enforcement Policy 3/24/99.	The ACRS noted that a comprehensive Enforcement Guidance Memorandum had been issued and a pilot study had been initiated to evaluate the implementation of the revised policy. The ACRS made five recommendations, some of which addressed the improved use of risk information.	The EDO stated that the ACRS recommendations and comments merited attention and that the staff would continue to keep the ACRS informed of the staff's activities.	Timely. The ACRS report was available during the Commission's deliberations.	To be determined.	Stay informed as to the implementation of the revised policy and revisit this work as requested by the Commission.

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Application of Westinghouse Best-Estimate Loss-of-Coolant Accident Analysis Methodology to Upper Plenum Injection Plants 3/24/99.	The ACRS (1) agreed that UPI plants as currently configured will have assured core cooling in a LBLOCA event; (2) believes that WCOBRA/TRAC predictions of PCT are either conservative or insensitive to modeling details; and (3) believes that NRC needs a more structured process for review of T/H codes.	The EDO addressed the ACRS comments. The EDO stated that the staff has begun the development of an improved review process for T/H codes.	Timely. Committee review supported NRC and Westinghouse schedules for code review and approval.	Staff adopted most of the Committee's recommendations. Detailed comments on modeling concerns were not adopted on the basis that the code already met the regulatory requirements of the ECCS Rule.	T/H Phenomena Subcommittee to address ACRS concerns in its discussion of the NRC staff's development of a code review process.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
High Burnup Fuel Phenomena Identification and Ranking 3/24/99.	The ACRS stated that (1) PIRT and the use of expert elicitation should provide a sound technical basis for NRC's research program; (2) RES should develop formalism for conducting expert opinion elicitation; (3) RES should address source term issues; (4) NRR and NEI should participate in the elicitation of expert opinion; and (5) the ACRS Quadriparte Working Group on High Burnup Fuel could contribute to this work.	The EDO acknowledged the ACRS input and support and stated a desire to continue to work with the ACRS and with the Quadriparte Working Group.	Timely. ACRS letter was issued prior to the RES development of the PIRT process and the expert opinion elicitation.	The ACRS provided useful input to the staff's work.	Follow the staff's work and discuss the NRC staff's development of the PIRT and expert elicitation process during a future meeting.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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Proposed ASME Standard for PRA for Nuclear Power Plant Applications (Phase 1) 3/25/99.	The ACRS stated that although additional work needs to be done, the overall approach to defining necessary PRA requirements is good and the standard has the potential for being very useful. The ACRS recommended that consideration be given to participatory peer review. A number of detailed comments were also provided.	In general, the EDO agreed with the ACRS comments. The EDO did not agree with the ACRS recommendation concerning participatory peer reviews.	Timely. The ACRS reviewed the draft ASME Standard during the early stages of development. The staff plans to endorse the proposed final ASME Standard by way of an update to Regulatory Guide 1.174. The ACRS effectively supported the EDO and Commission schedules for completion of the task.	The staff provided the ACRS report to the ASME. Effectiveness and outcome will be determined after reviewing the proposed final standard.	Review the proposed revision to Regulatory Guide 1.174 and associated final ASME Standard, when available.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Final Revision to 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" 4/14/99.	The ACRS recommended that the staff proceed with the proposed revision. The ACRS supported the staff position as to the need to consider all components taken out of service at the same time in the safety assessments and the staff position as to extending the rule to cover a wider range of maintenance activities. The ACRS recommends holding workshops involving licensees and regional staff to ensure consisting in implementation.	The EDO provided a combined response to the ACRS's 4/14/99 and 5/11/99 reports in which the Committee's concerns were addressed.	Timely.	The ACRS provided valuable input to the Commission decision process on a controversial issue.	The staff plans to brief the ACRS before the issuance of the final rule and the associated regulatory guide.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
SECY-99-017, "Proposed Amendment to 10 CFR 50.55a" 4/19/99.	The ACRS recommended against eliminating the requirement to update inservice inspection and inservice testing programs to the latest version of the ASME Code.	The EDO stated that the staff believes that licensees should not be required to implement periodic updates to the ASME code unless such changes can be justified in accordance with the Backfit Rule.	Timely.	The Commission directed the staff to retain the requirement for a 120-month update and to address elimination of the requirement in a separate rulemaking.	The ACRS commented on this issue during its July 1999, December 1999, and February 2000 ACRS meetings and Dr. Shack participated in a March 2000 Commission discussion of this
					matter. ACRS action on this matter is complete.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Status of Efforts on Revising the Commission's Safety Goal Policy Statement 4/19/99.	The ACRS stated that a revision of the Safety Goal Policy statement is needed and recommended that the revision be accomplished	The EDO stated that ACRS comments and recommendations were incorporated in the draft paper submitted to the	Timely. The Committee reviewed the staff's proposal during the early stages of development.		
	expeditiously. The ACRS agreed it was conceptually desirable to have an "overarching" policy statement for all NRC regulatory activities but was not of a single mind on the feasibility of or approach to this work.	Commission.		The Commission approved further study to consider developing a revised Policy Statement for reactors but disapproved NRC staff work on the development of an "overarching principles" policy statement.	

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Reevaluation of Generic Safety Issue Process 4/19/99.	The ACRS stated that the staff's draft management directive (MD) and associated handbook appeared to provide an effective process but recommended that the screening of new generic issues include an examination of the results of the IPE/IPEEE and an uncertainty analysis. The Committee recommended that the staff conduct a pilot study to evaluate the effectiveness of using the MD.	The EDO response addressed the ACRS comments.	Timely.	The staff adopted the Committee's recommendations. The staff is in the process of conducting a pilot study, to evaluate the effectiveness of using the MD to implement the revised GSI process.	Discuss the results of the pilot study during a future meeting.

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Status of Resolution of Steam Generator Tube Integrity Issues 4/22/99.	The ACRS stated (1) that the NRC staff and industry should continue to work toward resolution of technical and regulatory differences and (2) that the ACRS will review DPO after public comments are reconciled.	None required.	Timely. Met the staff's schedule.	As recommended by the ACRS, the staff continued to interact with the industry to resolve differences.	Review the staff's safety evaluation report related to NEI's performance-based technical specifications for steam generator tube integrity.
Proposed Revisions to the NRC Generic Communications Process 4/23/99.	The ACRS agreed with the staff's proposal for resolving concerns about the current process. The ACRS provided comments including a recommendation that the staff clarify guidance for deciding when an issue is urgent and when a limited cost-benefit analysis would be performed.	The EDO addressed the ACRS recommendations but did not commit to the actions suggested by the Committee.	Timely. ACRS effectively supported the schedules of the EDO and the Commission.	ACRS provided support for the approach proposed by the staff.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Modified Proposed Final Revision to 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at NPPs" 5/11/99.	The ACRS recommended that scope of the assessment may be limited to SSCs that a risk-informed evaluation process has shown to be significant. The ACRS stated that it supported the use of		Timeliness Timely.		
	on-line maintenance but expressed concern as to the adequacy of assessments of SSC configurations affected by out-of- service alignments and different modes of operation.	ACRS recommendations in the proposed revisions to RG 1.160.			

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Proposed Resolution of GSI- 158, "Performance of Safety-Related Power-Operated Valves (POVs) under Design Basis Conditions" 5/14/99.	The ACRS recommended that GSI-158 not be considered resolved as proposed by the staff and stated that the adequacy of functioning of POVs under design basis dynamic conditions had not been adequately addressed.	The EDO agreed that additional regulatory action was necessary but closed GSI-158 within the context of the GSI resolution process. The staff will consider the associated technical issues to be open until the licensees have taken actions that are acceptable to the NRC staff.	Timely. The ACRS review completed in accordance with the NRC's commitment to Congress.	The staff closed GSI-158 but has committed to addressing ACRS concerns.	Continue to interact with the staff as the effectiveness of industry actions becomes better known.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Use of Mixed Oxide Fuel (MOX) in Commercial Nuclear Power Plants 5/17/99.	The ACRS encouraged the use of the risk-informed approach delineated in RG 1.174 and the use of the revised accident source term. The ACRS noted that	Response The EDO provided thorough and detailed response to the ACRS report. In general, the staff agrees with the ACRS and will continue to	Timely. The Commission included ACRS comments on the use of the revised source term in its March 5, 1999 SRM.	The ACRS provided valuable input to and support for the	Continue to follow progress regarding the use of MOX fuels and schedule Subcommittee and Full Committee discussions as needed.
	the experimental studies have shown enhanced release of fission gases to the fuel cladding gap for MOX fuels and the issues associated with the higher MOX fuel actinide activity.	address the issues raised by the ACRS.			

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Proposed Final Rule - Revisions to 10 CFR Parts 50 and 72 Concerning Changes, Tests and Experiments 5/17/99.	The ACRS recommended issuance of the proposed final rule and conforming changes subject to the resolution of ACRS comments. The ACRS comments addressed the importance of the reduction of margin between a design basis limit and failure, the need for NRC review of any change in the evaluation methodology, and the specified enforcement process.	The EDO in his response offers additional insights on ACRS recommendations but did not adopt changes to the rule language.	Timely. The ACRS supported the EDO and Commission schedules for addressing this matter.	The EDO issued proposed rulemaking to Commission prior to receipt of ACRS report. Earlier reviews were effective in resolving major ACRS comments and recommendations. The alternate rule language suggested by the ACRS was not adopted.	Review the proposed NRC regulatory guide, inspection procedures, and industry guidance in NEI 96-07 during future meetings.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
The Role of Defense in Depth (DID) in a Risk-Informed Regulatory System 5/19/99.	The ACRS discussed the "structuralist" and "rationalist" approaches to DID and the value of DID in a design philosophy, and (1) noted that arbitrary appeals to DID could inhibit the effective use of risk		Timeliness Timely.		
	information; (2) stated the use of DID must be related to the uncertainties associated with the assessment of risk; and (3) noted the need for acceptance values on the level of uncertainty associated with each Commission safety objective.			having a significant impact.	

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Modifications proposed by the Westinghouse Owners Group (WOG) to the Core Damage Assessment Guidelines (CDAG) and Post Accident Sampling System (PASS) Requirements 5/19/99.	The ACRS recommends that the WOG proposal to modify the CDAG and PASS requirements be approved, with the quantification that sump pH measurements be required. The ACRS recommended that the regulations be revised to make clear that the PASS samples be used to assist long-term post-accident management decisions.	The EDO addressed but did not agree with the ACRS comments.	Timely.	The staff did not modify its proposal and the ACRS reinitiated its concerns in its 9/17/99 report on this subject.	Continue to follow staff's and industry's actions on this matter.

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NUREG-1635, Vol. 2, "Review and Evaluation of the Nuclear Regulatory Commission Safety Research Program" 6/99.	The ACRS continues to support the conclusions and recommendations of NUREG-1635, Vol. 2 and provided recommendations in various research areas.	The EDO provided a detailed response to the ACRS recommendations.	Timely. The report was provided in accordance with the Commission schedule. Additional resources were allocated to the work on the CY1999 research report to provide earlier and more effective input into the budget process.	The ACRS provided valuable input into the research planning effort.	The ACRS Subcommittee on Safety Research Program and the Full Committee are continuing to review the NRC Safety Research Program. The ACRS issued its CY2000 report on RES-sponsored research in February 2000.
Proposed Resolution of GSI- 165, Spring- Actuated Safety and Relief Valve Reliability 6/09/99.	The ACRS agreed with the staff's proposed resolution of GSI-165.	None required.	Timely. Completed in accordance with the NRC's commitment to the Congress.	The ACRS agreed with the staff proposal.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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Pilot Application of the Revised Inspection and Assessment Programs, Risk- Based Performance Indicators (PIs), and Performance- Based Regulatory Initiatives and Related Matters 6/10/99.	The ACRS recommended that (1) PI thresholds be plant or design specific and that the technical basis for sampling intervals be explained; (2) the hypothesis to be tested be made explicit; (3) action levels be related explicitly to risk metrics when possible; (4) existing studies be examined to determine if a PI for safety culture can be developed; and (5) lessons-learned from current NRC activities be documented.	The EDO response contained a discussion of the ACRS comments but did not address the issues to the ACRS's satisfaction. Committee decided that it was not satisfied with the EDO's response and would continue to pursue its concerns in future discussions of this matter.	Timely. The ACRS supported the EDO and Commission schedules for addressing this matter.	The staff considered but did not accept the ACRS recommendations.	Continue to review this matter in accordance with Commission priorities.

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Proposed Options for Using Averted Onsite Costs and Voluntary Initiatives in Regulatory Analyses 6/11/99.	The ACRS agreed with the NRC staff position and recommended that these costs be included in regulatory analyses and supported Option B in the staff's proposal. The ACRS stated that it expected a transition in the staff's approach to this matter as the agency moves more toward a risk-informed regulatory system.	The EDO addressed the ACRS comments and stated that it is anticipated that the cost-benefit estimates incorporated in regulatory analyses will include "full credit" for voluntary initiatives as NRC moves toward a risk-informed process.	Timely. The Committee reviewed predecisional draft documents to expedite the issuance of the SECY papers.	The Commission accepted the staff's recommendations and directed the staff to prepare draft changes to the regulatory analysis technical evaluation handbook.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Development of a Low-Power and Shutdown Risk Assessment (LPSD) Program 6/11/99.	The ACRS stated that (1) risk during LPSD operations has been estimated to be comparable to that of full power operations; (2) there are two distinct types of applications for LPSD risk assessment: a) risk management of	RES staff is currently developing a detailed plan for its LPSD risk assessment research. This plan will address the ACRS issues and is scheduled to be completed in	The ACRS report was issued prior to the staff's development of a LPSD research plan.		
	outages, and b) risk- informing regulations and decisionmaking; and (3) the PRA support needs for risk-informed regulation are different and more difficult to satisfy than those for outage management.	December 1999.			

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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SECY-99-148, "Credit for Existing Programs for License Renewal" 7/19/99.	The ACRS endorsed Option 3 of the staff's proposal and stated that the staff must have a basis for deciding that existing programs are adequate.	None required.	Not timely. The ACRS report was issued after SECY-99-148 was issued and after an associated Commission meeting on this subject.	The Commission approved the NRC staff's recommendation for Option 3 of its proposal.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Rev. 3 to Reg. Guide 1.160 (DG-1082), "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants" 7/21/99.	The ACRS recommended the staff defer endorsing Section 11 of NUMARC 93-01 until it has been revised by NEI and is made available for ACRS review. The ACRS provided comments to be incorporated in the revised RG 1.160 before issuance for public comment and encouraged the staff to provide additional guidance for evaluating the impact of disabling multiple SSCs.	The EDO agreed with the ACRS comments.	Timely.	The EDO addressed and took action on the ACRS concerns.	Section II of NUMARC 93-01 was revised and reviewed by ACRS during its November 1999 meeting.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Final Reg. Guide 1.181, "Content of the Updated Final Safety Analysis Report (FSAR) in Accordance with 10 CFR 50.71(e)" 7/21/99.	The ACRS recommended approval of the proposed final Regulatory Guide for use by the industry. The ACRS stated that the staff should consider how the	The EDO forwarded the ACRS comment on the evolution of the content of the FSAR to NRC managers responsible for risk-informed initiatives.	Timely. The ACRS effectively supported the EDO and Commission schedules for the completion of this work.	The ACRS offered forward-looking advice on the role of the FSAR in a risk-informed regulatory environment.	Follow-up None.
1721799.	content of the FSAR should evolve to support risk-informed regulation.	iniomed initiatives.			

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Revision of Appendix K, "ECCS Evaluation Models," to 10 CFR Part 50 7/22/99.	The ACRS (1) agreed with the intent of the proposed rule (2) stated that the staff should evaluate the possible impact of the proposed rule on part of the regulations other than Appendix K; and (3) stated that the staff should consider carefully the sometimes complex relationships between uncertainties and design margins.	The EDO response contained a thorough discussion of the ACRS comments. The impact of reduction in design margins beyond what is addressed in the revised Appendix K will be reviewed on a plant-specific basis.	Timely.	The proposed rule was published for public comment.	The review of the final rule was completed in February 2000.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Final Amendment to 10 CFR 50.55a, "Codes and Standards"	The ACRS recommended approval of the proposed amendment. The	The staff will brief ACRS on resolution of public comment associated with the staff's	Timely. The ACRS expedited its review to support the staff's schedule.	The amendment was issued.	The ACRS commented on this issue during its December 1999 and February 2000
7/23/99.	ACRS noted that the NRC staff was addressing the issues associated with a mandated 120-month update to the latest version of the ASME code in a separate rulemaking and indicated that the ACRS would discuss the matter with the staff in the future.	recommendation to eliminate the requirement to update ISI and IST programs every 120 months. The elimination of the requirement for a 120-month update will be addressed in a separate rulemaking.			meetings and ACRS member Dr. Shack participated in the March 2000 Commission discussion of this matter. ACRS action on this matter is complete.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Final Revision 3 to	The ACRS recommended that	The EDO stated that the staff was	Timely.	The ACRS provided valuable	Continue to follow work on graded
Regulatory Guide 1.105, "Setpoints for Safety-Related Instrumentation" 9/13/99.	the final Revision 3 to Regulatory Guide 1.105 be issued for industry use and encouraged the development of a graded approach to setpoint methodology.	currently working with industry on developing a graded approach to setpoint methodology.		input to staff work.	approach to setpoint methodology.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Interim Letter Related to the License Renewal of Oconee Nuclear Station 9/13/99.	The ACRS stated that the staff performed thorough review and concurred with the staff's favorable	The staff will brief the ACRS on the resolution of open and confirmatory items. ACRS generic license	Interim letter issued to expedite review and comment on SER.	The interim letter and associated ACRS comments were used to expedite review.	The ACRS completed its review of the Oconee license renewal application in March 2000.
3/13/33.	assessment of BAW- 2251 (management of RPV aging effects). The ACRS recommended additional research on void swelling. The ACRS also provided generic recommendations related to the license renewal process.	renewal process recommendations will be considered in the license renewal issues evaluation process.			iii wai cii 2000.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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Safety Evaluation Report Related to Electric Power Research Institute Risk-Informed Methods to Inservice Inspection of Piping (EPRI TR-112657, Rev. B, July 1999) 9/15/99.	The ACRS (1) agreed with the staff conclusion that the EPRI methodology can be used to develop risk-informed ISI programs; (2) stated that EPRI methods will better focus inspections and lead to reduced occupational radiation exposure and associated inspection costs; and (3) suggested that use of this methodology could result in a reduction in risk and that it may be possible to further reduce the number and frequency of inspections.	EDO agreed with ACRS conclusions and recommendations.	Timely. The ACRS effectively supported the EDO and Commission schedules for resolution of this issue.	Committee review during the early stages of development facilitated the incorporation of ACRS comments and recommendations in the proposed final version of the topical report and associated staff SER.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Rev. 1 to R.G. 1.78 (DG-1087) Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release 9/16/99.	The ACRS recommended that the staff (1) revise the regulatory guide to facilitate risk- informed license amendment requests to eliminate Technical Specification requirements for toxic gas monitoring systems; (2) provide performance-based guidance rather than prescriptive guidance; and (3) document validity and capability of all computer codes endorsed in regulatory guides.	The EDO agreed with ACRS recommendations on (1) and (2) and addressed the recommendations in (3) for the HABIT code. The EDO did not address the broader question of all computer codes endorsed in regulatory guides.	Timely. The review was completed in accordance with the EDO schedule for addressing this matter.	The proposed revision to RG 1.78 was modified in accordance with ACRS recommendations.	Review final version of RG, after public comment. ACRS will continue to have discussions with the staff on issue of documentation of codes endorsed in regulatory guides.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Modifications Proposed by the Westinghouse Owners Group to	The ACRS reiterated recommendations that it made in its 5/19/99 letter on this	The EDO addressed the ACRS comments and committed to	Timely.	The staff did not modify its proposal but committed to consideration of the	Continue to follow the staff and industry's actions on this matter.
the Core Damage Assessment Guidelines and Post-Accident Sampling System (PASS) Requirements 9/17/99.	subject and stated that it was the ACRS's view that the PASS in Westinghouse plants do not meet the intent of the TMI Action Plan.	thorough consideration of the ACRS comments.		ACRS comments.	

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Resolution of Generic Safety Issue-145, "Actions to Reduce Common Cause Failures" 9/17/99.	The ACRS recommended that the staff issue an additional Administrative Letter summarizing the major insights derived from the common cause failure research project to make them more readily available and agreed that GSI-145 could be closed out without further regulatory	The EDO agreed with the ACRS recommendation.	Timely. The review was completed in accordance with the NRC's commitment to Congress for resolution of this GSI.	The NRC staff committed to the issuance of the Administrative Letter.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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Proposed Final Rule on Use of Alternative Source Term at Operating Reactors, Draft Regulatory Guide, and Standard Review Plan (SRP) 9/17/99.	The ACRS stated that the staff has done an excellent job in developing a workable rule, regulatory guides, and SRP section. The ACRS provided comments on the staff work including a recommendation that the staff determine if the proposed requirement for evaluating CDF and LERF could be done within the 10 CFR 50.59 change process.	The EDO addressed the ACRS comments but did not change the NRC staff's proposal.	Timely.	The staff committed to considering the ACRS comments during the public comment period.	Review the staff responses during review of final version of Regulatory Guide and SRP Section.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Combustion Engineering Owners Group (CEOG) Application to Eliminate the Post-Accident Sampling System (PASS) from the	The ACRS recommended that the staff approve the CEOG proposal to eliminate PASS from the plant design and licensing basis and evaluate the need for	Response The EDO stated that the staff believes that the WOG and CEOG proposals have merit, but will seek public comment prior to making a	Timely.	Outcome The staff did not modify its proposal but committed to consideration of the ACRS comments.	Follow-up Review outcomes of staff's actions.
Plant Design Bases for CEOG Utilities 10/8/99.	new generic requirements on post-accident measurement of in- containment fission products and sump pH.	decision.			

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Resolution of Generic Safety Issue 23 (GSI-23), "Reactor Coolant Pump Seal Failure" 10/8/99.	The ACRS agreed with the staff's proposed resolution of GSI-23 and recommended that the staff assess the impact of uncertainties in the evaluation on a plant-specific basis and the need to require the use of available improved seal materials. The staff is currently analyzing non-Westinghouse pump seal performance using Westinghouse pump based models. The ACRS recommended that a more realistic analysis be developed.	The EDO agreed with the ACRS recommendation.	Timely. The review was completed in accordance with the NRC's commitment to Congress.	EDO agreed with and committed to take actions on all of the ACRS recommendations.	Follow the NRC staff's work on a task action plan to determine the need for plant-specific backfits.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Draft Commission Paper Regarding Proposed Guidelines for Applying Risk- Informed Decisionmaking in License Amendment Reviews (SECY- 99-246)	The ACRS agreed that additional guidance is needed on staff requests for additional information and agreed that the process outlined by the staff is acceptable. The ACRS noted that the process used should	Response The EDO's response states that the staff will give full consideration to the ACRS recommendations subject to the Commission's approval of SECY-99-246. The EDO	Timeliness Timely.		
10/8/99.	neither discourage risk-informed submittals nor require probabilistic risk assessments for all licensing actions. The ACRS also noted that the staff needs to improve its own risk and accident analysis tools.	also agreed that it is important for the staff to have appropriate accident analysis tools.			

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
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Proposed Resolution of GSI B-55, "Improved Reliability of Target Rock Safety Relief Valves" 10/8/99.	ACRS agreed with the staff's proposed resolution of GSI B-55 and recommended that the staff perform a statistical analysis to confirm the apparent improvement in valve performance.	The EDO agreed with the ACRS recommendation and committed to performing the recommended statistical analysis.	Timely. The review was completed in accordance with the NRC's commitment to Congress.	The EDO agreed with and committed to taking action on the ACRS recommendation.	None.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Plans for Developing Risk-Informed Revisions to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities" 10/12/99.	The ACRS agreed with the staff's proposed new 10 CFR 50.69 and associated Appendix T and the staff general approach to categorizing SSC's. The ACRS provided comments on the use of importance measures and the staff's proposed Option 2 and Option 3. The ACRS noted that policy issues related to the role of defense in depth in a risk-informed regulatory system needed to be resolved before implementing this work.	The EDO agreed with ACRS conclusions and recommendations.	Timely. The ACRS effectively supported the EDO and Commission schedules for completion of this review. The Subcommittee on Reliability and PRA made a number of important contributions during the early stages of the development of this regulatory position.	Effective. Early input contributed significantly to the staff's work.	Continue to review this matter during future meetings as requested by the Commissioners. (SRM dated 4/5/00)

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Final Design Certification Rule and Changes to the Design Control Document Associated with AP600 Design 11/12/99.	The ACRS stated that its review of these changes did not change the conclusions of its 7/23/98 report in which the ACRS concluded that the AP600 design can be used to engineer and construct plants that can be operated without undue risk to the health and safety of the public.	None required.	Timely.	The ACRS did not change the position taken in its 7/23/98 letter.	None.
Proposed Resolution of GSI- 148, "Smoke Control and Manual Fire-Fighting Effectiveness" 11/12/99.	The ACRS concurred with the staff proposal for resolving GSI-148 and recommended that the guidance document be revised to address the effects of smoke.	The EDO addressed the ACRS comments but did not change its guidance document.	Timely. The review was completed in accordance with the NRC's commitment to Congress.	The staff considered ACRS comments but did not change its position.	None planned.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Spent Fuel Fires Associated with Decommissioning 11/12/99.	The ACRS provided a number of comments on the staff's analysis and	The EDO agreed with the ACRS regarding uncertainties	Timely. The ACRS reviewed this matter early and reviewed the	Effective. The staff will consider the ACRS recommendations	The ACRS reviewed the revised technical study during its
11/12/99.	models and stated that it would be reviewing the staff's progress in this area. The ACRS noted that the issue would be a good candidate for the use of a rationalist regulatory approach as discussed in its 5/19/99 report on defense-in-depth.	related to oxidation kinetics and heat rejection mechanisms that the staff will employ conservative assumptions for decay times. The EDO also agreed with the ACRS regarding uncertainties in the analysis for the critical temperature. The staff will adjust the critical temperature and decay time to compensate for the lack of knowledge.	draft technical study. ACRS discussed this issue with NRC staff, NEI, and two members of the public prior to a Commission meeting to facilitate input into the Commission decision process.	and modify its technical study accordingly. The ACRS input provided valuable input to the Commission decision process.	April 2000 ACRS meeting.

Examples for Identifying 10 CFR satisfactorily addressed and supported the EDO and Commission commission version version following the EDO and Commission	w the sed final n of DG-1093 ing the ciliation of comments.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Rev. 3 to	The ACRS	The EDO	Timely.	The ACRS	None.
RG 1.160 (DG- 1082), "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants" 11/12/99.	recommended that the revised RG 1.160 be issued for public comment and supported the staff	addressed and implemented the ACRS recommendation.		supported the staff's position.	

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Implementing a Framework for Risk-Informed	The ACRS and ACNW recommended that	The EDO addressed and, in general, agreed	Report was issued on a schedule that	Effective interaction has been established	The Joint ACRS/ACNW Subcommittee
Regulation in the Office of Nuclear Material Safety and Safeguards (NMSS) 11/17/99 (Joint ACRS/ACNW letter).	NMSS develop a set of principles and a safety goal approach for each of its regulated activities to guide in implementation of risk-informed and performance-based regulation. The ACRS and the ACNW also recommended that NMSS should identify analytical methods to be applied in risk-informed and performance-based regulation on an application-specific basis.	with the ACRS/ACNW recommendations. The staff is examining a new approach for screening/ qualifying potential risk-informed elements for each NMSS regulatory activity and has begun to examine risk methods applied to NMSS activities.	provided timely input into the staff's work. The report was issued after the Commission had issued an SRM on this matter.	between the ACRS/ACNW and the staff.	plans to continue its review of staff activities in this area during future meetings. The ACRS and the ACNW are working to improve the process used to issue joint Committee work products.

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up	
Draft Commission Paper Regarding the 120-Month Update Requirement for Inservice Inspection (ISI) and Inservice Testing Programs (IST) 12/8/99.	The ACRS recommended the adoption of Option 2, retaining the 120-month update requirement for ISI and IST programs in 10 CFR 50.55a and provided comments on the application of defense in depth.	The EDO addressed the ACRS comments but did not agree with the ACRS recommendation to retain the requirement for a 120-month update requirement.	Timely.	The staff has not modified its position. The ACRS provided additional comments in a 2/18/00 report.	The ACRS provided comments during February 2000 ACRS meeting and ACRS member Dr. Shack participated in the March 2000 Commission discussion of the matter. ACRS action on this matter is complete.	
Report on the Safety Aspects of the License Renewal Application for Calvert Cliffs Nuclear Power Plant, Units 1 and 2 12/10/99.	The ACRS stated that Calvert Cliffs can be operated for the period of the extended license without undue risk to the health and safety of the public.	The EDO provided the ACRS with additional information on several topics discussed and found acceptable in the ACRS letter.	Very timely. Completed review 2-months ahead of its original schedule to support the staff's accelerated review.	The ACRS was effective in working with the staff and completing its review of the first license renewal application on an expedited schedule.	None.	

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
Proposed Resolution of Generic Safety Issue-190, "Fatigue Evaluation of Metal Components for 60-Year Plant Life" 12/10/99.	The ACRS agreed with the staff's proposal to resolve GSI-190. The ACRS recommended that environmentally assisted fatigue degradation be addressed in agency management programs developed	The EDO stated that NRR would ensure that environmentally assisted fatigue degradation would be addressed in the agency management programs.	Timely. Review was completed in accordance with the NRC's commitment to Congress.	The ACRS agreed with the staff's proposal for resolution of GSI-190.	None.
	programs developed for license renewal.				

ACRS Letter	Main Message	EDO/Commission Response	Timeliness	Effectiveness/ Outcome	Recommended Follow-up
NUREG-1624, Revision 1, "Technical Basis and Implementation Guidelines for a Technique for Human Event Analysis ATHEANA" 12/15/99.	The ACRS made a number of comments on the staff's work, including that the scope of the methodology should be extended to include normal activity that may cause a plant event and that a screening		Timely.		
	process needed to be developed to identify the appropriate level of analysis.				

ACRS Definition of Acronyms

ACRS Advisory Committee on Reactor Safeguards

ANS American Nuclear Society

ANSI American National Standards Institute
ASME American Society of Mechnical Engineers

ASP Accident Sequence Precursor

ATWS Anticipated Transient without Scram

BG&E Baltimore Gas and Electric

BWRVIP Boiling Water Reactor Pressure Vessel Shell Weld Inspection

CDAG Core Damage Assessment Guideline

CDF Core Damage Frequency

CEOG Combustion Engineering Owners Group

CFR Core of Federal Regulations

CNWRA Center for Nuclear Waste Regulatory
CTM Chairman's Tasking Memorandum

DID Defense in Depth

DPO Differing Professional Opinion
DQSR Director's Quarterly Status Report
ECCS Emergency Core Cooling System
EDO Executive Director for Operations
EPRI Electric Power Research Institute

GIMCS Generic Issue Management Control System

GSI Generic Safety Issue HPP Human Performance Plan

INEEL Idaho National Engineering and Environmental Laboratory

IPE Individual Plant Examination

IPEEE Individual Plant Examination of External Events

ISI Inservice Inspections
IST Inservice Testing

LBLOCA Large Break Loss of Coolant Accident

LERF Large Early Release Frequency

LOCA Loss of Coolant Accident
LPSD Low Power Shutdown

MD Management Directive MOVs Motor-Operated Valves

MOX Mixed Oxide Fuel

NEI Nuclear Energy Institute

NFPA National Fire Protection Association
NMSS - Nuclear Material Safety and Safeguards

NPP Nuclear Power Plant

PAR Passive Autocatalytic Recombiner
PASS Post Accident Sampling System

PIRT Phenomena & Identification and Ranking Table

POV Power Operated Value

PRA Probabilistic Risk Assessment PSAR Final Safety Analysis Report

RES Office of Nuclear Regulatory Research

RG Regulatory Guide

SER Safety Evaluation Report

SRM Staff Requirements Memorandum SSC Structure, System, and Component

T/H Thermal/Hydraulics

W Westinghouse Electric Company WOG Westinghouse Owners Group