

POLICY ISSUE
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MEMORANDUM TO: The Commissioners

FROM: John T. Larkins, Executive Director /RA/
Advisory Committee on Reactor Safeguards (ACRS)
Advisory Committee on Nuclear Waste(ACNW)

SUBJECT: SELF-ASSESSMENTS OF ACRS AND ACNW PERFORMANCE

PURPOSE

The purpose of this paper is to provide the Commission with the results of the Advisory Committee on Reactor Safeguards (ACRS) and Advisory Committee on Nuclear Waste (ACNW) self-assessments for Calendar Years (CY) 2001 and 2002 and to describe the actions that the Committees will undertake as a result of these self-assessments.

BACKGROUND

The ACRS and ACNW have been directed to perform periodic self-assessments and provide the results to the Commission. The current interval for reporting the results of ACRS/ACNW self-assessments is two years. The results are reported in Commission papers. The activities associated with these self-assessments are conducted as part of the day-to-day management processes and in periodic surveys of the Committees' stakeholders. The lessons learned from these self-assessments are used to improve the efficiency and effectiveness of the ACRS and ACNW.

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DESCRIPTION OF THE SELF-ASSESSMENT PROCESS

Both Committees have established processes to ensure that the priorities of the Commission and the Executive Director for Operations (EDO) are understood and addressed in prioritizing the work of the Committees. The Chairman's Tasking Memorandum, published Nuclear Regulatory Commission (NRC) staff schedules, Staff Requirements Memoranda (SRMs), ACRS/ACNW Operating Plan, and discussions with Commissioners and their staff, the NRC staff, and other stakeholders are used to prioritize work. The ACRS/ACNW Operating Plan is being used as a vehicle for obtaining the Commissioners and the EDO's feedback on ACRS and ACNW priorities and plans for proactive work.

The ACRS and ACNW conduct periodic retreats during which they review their agenda and methods of operation, set priorities for the future, and assess their activities and planning. In addition, both Committees review their schedules and priorities at each full Committee meeting and make necessary adjustments to support the changing needs of the Agency. Changes reflect feedback from the Commissioners, the EDO, and cognizant NRC staff, and input from lead ACNW members and ACRS Subcommittee Chairmen.

The Committees have increased their interactions with stakeholders to solicit their input on Committee activities. The stakeholders interviewed for these self-assessments include Commissioners, former ACRS members, NRC staff, staff from other Federal agencies, members of State and local governments, members of public interest groups, and members of the regulated industry. These interviews provide insights which both Committees consider in planning their activities and preparing self-assessments.

As part of the self-assessment activities, both Committees carefully evaluate their letters and reports to determine whether they contain advice that addresses safety-significant issues and is (a) effective and timely, (b) technically sound and based on state-of-the-art knowledge, (c) clear and concise, (d) relevant, balanced, and unbiased, and (e) forward-looking. The letters and reports are also assessed to determine whether they are responsive to Commission and staff needs, considered in Commission and staff decisions, and influence NRC's regulatory decisions. These assessments have been based on evidence that the advice was accepted and adopted, and on unsolicited and solicited feedback from stakeholders. The results of this activity are tabulated in matrices, maintained by the ACRS/ACNW Office staff, and are used in the assessment of the effectiveness of the Committees. These matrices, which summarize the content and impact of Committee letters and reports, have proven to be valuable tools for analyzing the effectiveness of the Committees, identifying the need for follow-up actions, and communicating information. The letter matrices are included in the annual updates to the ACRS/ACNW Operating Plan.

RESULTS OF THE CY 2001-2002 SELF-ASSESSMENTS

ACRS Self-Assessment for Cy 2001 and 2002

General Comments

The ACRS held an annual planning meeting in January 2002 to assess its priorities, effectiveness, and operating processes. The results of its self-assessment revealed that

its advice is generally timely, focused on the priority issues of the Agency, and is used by the Commission and the NRC staff in their regulatory decisions. The ACRS is using its Operating Plan to guide its use of resources. Regular planning meetings and communications with Commissioners and NRC staff are used to assess the ACRS effectiveness in carrying out its mission. The Commissioners and NRC staff derive value from these communications and the ACRS intends to continue this practice. In particular, the ACRS Chairman and/or cognizant members will continue to meet with Commissioners, the EDO, and NRC senior management on a regular basis to discuss the ACRS priorities, planned initiatives, and insights on future issues. The ACRS will use this process to obtain Commissioners' feedback and to discuss its activities with the NRC staff.

This self-assessment has led the ACRS to conclude that its reports have a positive impact on the regulatory process, address issues of importance to the Commission, are valuable to the Commission in its deliberations, and respond adequately to NRC staff activities. Stakeholders generally view the ACRS as knowledgeable and fair in its consideration of different points of view. Stakeholders believe that interactions with the ACRS have been positive and professional, that the ACRS provides constructive input, and that an important function of ACRS reviews is to ensure the technical quality of staff and staff-supported work. Stakeholders observed that the ACRS limited resources are managed such that ACRS has provided satisfactory support to NRC staff and licensee schedules.

The ACRS report on NRC-sponsored research was identified as being valuable to the Commission and the NRC staff. It was noted such reports needed to address the necessity for identifying existing work that could be sunset along with new research needs. ACRS license renewal reviews were judged to be efficient and timely and make efficient use of the applicants' resources. The ACRS members were observed to be well informed and provide useful insights and examinations of NRC staff and industry positions. ACRS deliberations on issues related to future reactors were described as being very helpful and focused on the right issues.

Stakeholders continue to emphasize that the ACRS provide advice that is direct and readily understood, strive to provide possible solutions with its recommendations, and be clear as to what is expected of an NRC staff response. Stakeholders have also observed that the ACRS should focus on important issues that are not receiving adequate regulatory attention. Committee discussions and reports that provide an in-depth analysis of a subject were identified as being the most useful. The Subcommittee process was described as providing an important forum for the discussion of complex technical issues. As an example, stakeholders observed that the ACRS Thermal/Hydraulic Phenomena Subcommittee provided an important forum for probing complex issues and developing solutions to regulatory problems. Workshops and workshop-oriented subcommittee meetings were judged to be valuable in that they provide a forum for an in-depth discussion of an issue. The Committee's activities related to future reactors and the use of probabilistic risk assessment were cited as examples.

Specific Comments and Actions

Stakeholders noted that the ACRS should be proactive in addressing significant issues and be more aggressive in following up on actions taken by the NRC staff in response to its recommendations. Proactive ACRS initiatives will be addressed in the Planning and Procedures Subcommittee process, using input provided by the ACRS members and ACRS staff. ACRS will solicit feedback from the Commissioner and other stakeholders as part of this planning activity. As part of its self-assessment, the ACRS prepared a matrix of its letters and reports in which individual reports are discussed. ACRS followup actions for the individual reports are described in the matrix as included in the ACRS/ACNW Operating Plan.

Stakeholders noted that the Committee deliberations should be transparent (that is, the issues considered and the range of member opinion) and that ACRS letter reports should be direct and the message not diluted. The Committee will continue to address these issues.

Stakeholders stated that the ACRS critical analysis of staff and industry positions was needed to maintain the Committee's credibility as an effective advisory body. Stakeholders also stated that the ACRS review frequently leads to significant improvements to the staff's or the industry's analysis of a resolution of a regulatory issue. The ACRS has been reviewing staff and industry positions, including differing views, on critical issues and will continue to do so.

The ACRS members are described as technically competent. Stakeholders recommended that ACRS continue to serve as an integrator of key issues, review technical issues in an integrated way, and provide advice that reflects this global perspective. The NRC staff views the ACRS review as a means of validating and improving staff positions. Some stakeholders recommended that the expertise needed for new ACRS members be evaluated in light of anticipated emerging regulatory issues, such as the licensing of new reactors. The ACRS will evaluate its expertise as member vacancies occur and make recommendations to the Commission. The Committee will also be using consultants to augment its expertise.

Some stakeholders believed that the efficiency of ACRS reviews suffered, on occasions, from members too frequently interrupting the presenters and not allowing the presenters the time needed to fully explain their positions. Discussions between members on issues not directly related to the matters at hand were judged by some stakeholders to be distracting. The ACRS Chairman and ACRS Vice Chairman plan to address this issue.

The ACRS was described as doing an excellent job of providing oversight of significant NRC staff activities and ensuring the quality of staff and staff contractor work, but needed to be more selective in its reviews of routine NRC staff work, and needed to look for efficiencies in its conduct of statutory reviews. ACRS will continue to address these needs within the structure of its Planning and Procedures Subcommittee activities and its discussions with the Commissioners and NRC staff. The ACRS/ACNW Operating

Plan will be used to focus the ACRS and staff efforts to keep the Commission informed of Committee activities.

It was observed that a strong and proactive ACRS staff is an important asset to the Committee, and that coordination between ACRS staff and meeting participants is essential to proper member preparation, the identification of review issues, and the success of Subcommittee and full Committee discussions. The ACRS staff was judged to provide excellent technical and administrative support. Pre-meeting identification of ACRS members' interests, information needs, and the issues/questions that are likely to be raised are needed for the efficient use of meeting resources. It was noted that particular attention needed to be given to participants who have infrequent contact with the ACRS. Some stakeholders suggested that packages containing material describing members' backgrounds and ACRS responsibilities would be useful to these participants. The ACRS staff intend to direct stakeholders to the ACRS website postings of this information and continue to focus attention on pre-meeting preparation of meeting participants. The ACRS/ACNW staff will also continue to develop task plans for specific ACRS activities and to share these plans with our stakeholders.

It is believed that the ACRS should plan its work carefully, being sensitive to NRC staff's schedules, and take the time necessary to do in-depth, informed reviews. Early, proactive ACRS input is believed to benefit the staff, support the efficient use of staff resources, and to facilitate timely completion of ACRS reviews. The ACRS will continue to plan its reviews carefully to avoid unnecessarily disrupting staff schedules and to work with the staff in identifying and developing task plans for its in-depth reviews.

Stakeholders have stated that the ACRS should be actively engaged in the NRC's safeguards and security activities. ACRS has established a Subcommittee with this responsibility. This Subcommittee has met with the staff on three occasions and has established its task plan for FY 03 and early FY 04 that reflects the Office of Nuclear Regulatory Research (RES) and Office of Nuclear Safety and Incident Response (NSIR) staffs' expressed needs. The ACRS and ACNW have obtained Commissioners' feedback on areas for the Committees' focus. The ACRS staff has also worked with the NSIR staff in developing a Commission paper on NSIR use of security consultants and external technical expertise. The ACRS and ACNW will review specific technical issues associated with safeguards and security.

Day-to-day operations of the ACRS are guided by the processes described in the Memorandum of Understanding (MOU) between the ACRS and the EDO, the processes in the ACRS procedures manuals, and monthly meetings with our OEDO, Office of Nuclear Reactor Regulation (NRR), RES, and Office of Nuclear Material Safety and Safeguards (NMSS) coordinators. We intend to reevaluate these processes in FY 2003 in light of our lessons-learned and new activities .

ACNW Self-Assessment for CY 2001 and CY 2002

General Comments

The ACNW held an annual planning meeting in February 2002 to assess its priorities and operating processes and to update its Action Plan. In addition to the ACRS/ACNW Operating Plan, the ACNW Action Plan is developed annually and provides the Committees' tier one and tier two priorities. The updated plan was published and placed on the ACRS/ACNW website for use by the stakeholders. The ACNW prepared a matrix of its reports, which it used in its self-assessment to evaluate its effectiveness against the goals and objectives in its Action Plan. The results of the self-assessment have led the ACNW to conclude that its advice is generally timely, is focused on the priority issues identified in its Action Plan, and is used by the NRC staff and the Commission in their regulatory decisions. Stakeholders' responses generally reflected a positive view of the ACNW. The ACNW issued an Action Plan in CY 2002 and has recently updated its Action Plan for CY2003. Stakeholders input on areas that should be emphasized by the ACNW are addressed in this Action Plan revision.

The focus of the ACNW's efforts in CY 2003 will be on issues associated with high-level waste and the anticipated Yucca Mountain License Application. The ACNW is in the process of preparing a detailed plan for its involvement in the review of this License Application and will seek Commission approval of this plan. The ACNW's involvement in pre-decisional matters will be in accordance with the procedures described in the MOU between the ACNW and the EDO, and will be consulted with the Commission.

The ACNW's reports were judged to be well written and of high quality and focused on broad high-level regulatory issues. Stakeholders thought the reports provided adequate explanations for the conclusions and recommendations and were focused on relevant issues. The ACNW is viewed as providing valuable input to the solution of waste management safety issues. Feedback received from the Commission indicated that the ACNW is addressing all of the Commission's priority interests that are within the purview of the ACNW. Regular communications with the Commissioners and the EDO and the use of a published Action Plan help to ensure this result.

The ACNW keeps itself currently informed through meetings with the NMSS staff, attendance at public meetings, and the review of relevant documents. ACNW will be directing more attention in the future to following up on NRC staff actions on ACNW recommendations. The communications between the Committee, the Commissioners, and NRC senior management were judged to be excellent. Continued interaction between ACNW members and NMSS senior management was observed to be important.

External stakeholders generally continue to comment, very favorably, on the ACNW's performance and willingness to provide a forum for the discussion of their views and NRC staff activities in waste management. Interactions between the ACNW and its stakeholders have been open and professional, and the ACNW continues to be viewed as an important contributor to the open discussion and resolution of issues.

Specific Comments and Actions

Stakeholders emphasized that the ACNW should continue to address broad technical issues and focus on the most risk-significant issues. A few stakeholders suggested that

ACNW carefully examine the limitations of applications of risk -assessment methodology and critically examine the results of this type of analysis. The ACNW will continue to conduct such examinations and, as needed, discuss the issue in its reports. The ACNW also plans to continue to evaluate work being conducted at the Center for Nuclear Waste Regulatory Analysis and report its findings to the Commission.

Stakeholder feedback from the ACNW's November 2002 workshop on transportation issues was generally positive. However, ACNW received negative feedback from representatives of the State of Nevada for not including them on the agenda as speakers during this workshop. An opportunity was subsequently provided during the April 2003 ACNW meeting during which representatives of the State of Nevada expressed their views. Future workshops will involve various stakeholders.

The reactions of stakeholders to the ACNW's meetings in Nevada and the ACNW's interactions with Yucca Mountain stakeholders continue to be positive. There was, however, little support for ACNW meetings that were solely directed at public outreach. Because of resource constraints, the ACNW does not plan to have more than one meeting a year in Nevada, but will make use of video teleconferencing to provide enhanced interactions with the Nevada stakeholders. Opportunities will be provided for the Nevada stakeholders to contribute to the agenda planning and to participate in these meetings. Public outreach efforts will be included as part of the scheduled discussion of technical topics.

A technically strong ACNW staff that assists the meeting participants in their preparation for ACNW meetings and helps the ACNW members in their review of the relevant documents was observed to be very important. As a result of this staff support, the Committee advice to the Commission has been effective and efficient. Scheduling of meetings on complex issues and identification of ACNW issues and meeting objectives, well in advance of the meeting, were also judged to be important. ACRS/ACNW Office support of the ACNW in identification of review topics, planning reviews, and coordinating with NRC senior management was judged to be essential to the efficient and effective operation of the ACNW.

The information posted on the ACNW's public web site was criticized by some stakeholders, who rely on this site to plan interactions with the ACNW, as not providing timely and accurate information on ACNW meeting agendas. The ACRS /ACNW staff will take additional measures in the future, including posting draft agendas, to ensure that agenda information is provided as early as possible and that the web site reflects the current agenda information.

Day-to-day operations of the ACNW are guided by the processes described in the MOU between the ACNW and the EDO, the processes in the ACRS/ACNW Office's procedure manuals, and monthly meetings with our OEDO, NRR, RES, and NMSS coordinators. We intend to reevaluate these processes in FY 03 in light of our lessons-learned and new activities.

ACTIONS RESULTING FROM PREVIOUS SELF-ASSESSMENT

This section describes actions taken by both Committees in response to previous formal self-assessments and related activities.

ACRS

In the past, stakeholders have commented on the importance of ACRS to continue to maintain a good understanding of plant operational and regulatory issues. The ACRS has had regular interactions with industry and other stakeholders on operating plant issues as well as emerging regulatory issues. The ACRS members continue to conduct annual visits to a regional office and a plant in the selected region and to visit certain plants seeking license renewals. Regular discussion and analysis of plant operating experience, led by a cognizant ACRS member, are scheduled during the ACRS Full Committee meetings.

The ACRS has searched for ways to conserve its resources and improve the efficiency and effectiveness of its reviews. The ACRS has evaluated its use of resources on its annual review of NRC-sponsored research and plans to continue to perform an annual review. The ACRS currently plans to perform comprehensive program reviews every two years and to focus its attention between two-year reviews on topics of emerging importance. Lessons learned from each review are used to make subsequent reviews more efficient. The ACRS report for FY 2003 focused on research issues associated with the licensing of new reactors and was issued to the Commission on March 13, 2003, to support the Commission's review of NRC research program. The report for FY 2004 will be a comprehensive report addressing the whole research program.

The process for conducting license renewal reviews has also been improved and streamlined to free resources for emerging areas (e.g., new reactors and safeguards and security). The new process was highly effective and significant resources were freed for other activities. Industry participants stated that the ACRS license renewal reviews were efficient and timely and made effective use of industry resources. ACRS members were described as being well-informed and providing useful examinations of NRC and industry positions.

The ACRS has worked with the NRC staff to develop a review standard for power uprates which will be used to streamline this ACRS review process. This review standard was developed because of recommendations from the ACRS. It is expected that both the NRC staff and the ACRS will realize resource savings from the use of the review standard and that the quality of these power uprate reviews will improve.

In the last ACRS/ACNW self-assessment, it was noted that some stakeholders believed that attention should be given to better member preparation for ACRS meetings. This required that the documents needed by the ACRS for its reviews be received in a timely manner. The processes in the revised ACRS/EDO MOU and interaction with meeting participants have been used to enable better member and meeting participant preparation for ACRS meeting discussions. We will continue to work with the NRC staff to obtain timely submittal of the documents needed by the ACRS.

ACRS has engaged itself in an in-depth review of a number of important topics in response to its finding that this is an especially effective way for the Committee to add value to NRC activities. Examples are reactor safety-related activities in foreign countries, new reactors, use of risk assessment in the regulatory decisionmaking process, the Mixed Oxide Fuel Fabrication Facility, thermal-hydraulic code improvements, license renewal, and safeguards/security. The ACRS activities related to future reactors, the annual review of NRC-sponsored research, and Thermal-Hydraulic Phenomena Subcommittee discussions were identified as particularly valuable.

ACNW

Some stakeholders stated that the ACNW needed a member or a regularly engaged consultant with expertise on health physics. A fifth member with strong health physics expertise has been added to the ACNW's membership.

A number of stakeholders asked that ACNW provide more opportunities for stakeholder involvement in ACNW activities. The ACNW staff contacts stakeholders and requests presentations related to their work on issues under review by the ACNW. The ACNW also has taken the initiative in soliciting the views of stakeholders not directly involved in developing the particular work products under review by the ACNW, examples being the ACNW's workshops on research and performance assessment and the outreach meetings conducted in Nevada. Teleconferencing has been used extensively to facilitate viewing and participating in ACNW meetings. Resource constraints have prevented the suggested Internet-based broadcasting of ACNW meetings. There continues to be concerns on these issues by stakeholders and the ACNW continues to work to address these issues.

SUMMARY

The results of the ACRS and ACNW self-assessments reveal that both Committees provide advice to the Commission in an efficient and effective manner, add value to the regulatory process, and contribute to the accomplishment of the NRC mission. The Committees will continue to monitor the effectiveness and efficiency of their operations and make improvements as warranted.

cc: SECY
EDO