

December 22, 2000

Dr. Dana A. Powers, Chairman  
Advisory Committee on Reactor Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: RESPONSE TO ACRS LETTER TO CHAIRMAN MESERVE, DATED  
NOVEMBER 15, 2000, "LICENSE RENEWAL GUIDANCE DOCUMENTS"

Thank you for your letter to Chairman Meserve dated November 15, 2000, outlining the Advisory Committee on Reactor Safeguards (ACRS) conclusions and recommendations regarding license renewal guidance documents. The staff appreciates that the ACRS devoted significant resources reviewing the details of these documents.

I am forwarding the staff's response to the ACRS recommendations transmitted in your letter dated November 15, 2000.

Recommendations:

1. The staff should update the Generic Aging Lessons Learned (GALL) report as lessons are learned from reviewing future license renewal applications and as new editions of codes and standards are approved by the staff. The staff should update the GALL report to incorporate new editions of codes and standards for which a similar process (such as the approval process of 10 CFR 50.55a) does not exist.

Response: The staff agrees with the recommendation. After resolving stakeholder comments on GALL in April of 2001, the staff will periodically update it as lessons are learned through subsequent license renewal reviews. The frequency by which updates will be made is still being evaluated by the staff.

In an August 31, 2000, Federal Register Notice (65 FR 53047) soliciting comments on GALL, Standard Review Plan for License Renewal (SRP-LR), and draft Regulatory Guide DG-1104, the staff specifically requested stakeholders to comment on how updates to codes and standards referenced in GALL should be addressed. The NRC has a process to periodically incorporate updated versions of the ASME Code into the regulation in accordance with 10 CFR 50.55a. To ensure that the GALL report conclusion will remain valid when further editions of the ASME Code are incorporated into the NRC regulation by the 10 CFR 50.55a rulemaking, the staff will perform an evaluation of these later editions for their adequacy for license renewal. However, there are other national codes and standards that are not subject to the Commission approval process in 10 CFR 50.55a. The staff believes that the most flexible approach is to specify in GALL the elements of the codes and/or standards that are required to provide

adequate aging management, rather than just referencing the code or standard as providing an adequate aging management program. Where GALL references a code or standard as providing an acceptable aging management program, an applicant could compare the two codes or standards and show in its application how a later version of the code or standard provides an equivalent aging management program. Both these approaches would preclude the need in the future for the staff to review newer versions of codes and standards and then have to update GALL to reflect the newer versions. However, an equivalent approach, but perhaps more resource intensive for the staff and less resource intensive for license renewal applicants, which has also been recommended by one member of the public in response to the staff's Federal Register solicitation, would be to call out the codes and standards as providing an acceptable aging management program and then have the staff review revisions to codes and standards referenced by GALL as they are published and update GALL, as necessary. This might require license renewal applicants to describe comparisons with later versions if the staff had not yet revised GALL to reflect later versions. The staff prefers the first approach. The staff will pursue this issue further with stakeholders over the next few months as it resolves comments on GALL.

2. The staff should validate that the artificially aged cables used in the studies conducted to address GSI-168 issues are representative of 30-40 year old cables.

Response: The staff believes that the intent of this ACRS recommendation has been addressed in conjunction with the research activities completed in support of the resolution of GSI-168 on Environmental Qualification of Low-Voltage Instrumentation and Control (I&C) Cables. That research included direct comparisons between artificially and naturally aged cables, where the naturally aged cables with 10 and 24 years of service were acquired from decommissioned nuclear power plants. The operating thermal and radiation environment for the naturally aged cables was determined from plant records. Six sets of loss-of-coolant-accident (LOCA) tests provided data to validate that the artificially aged cables are representative of 20-40 year old cables. The LOCA tests were conducted on three different groups of cables; new cables, cables artificially aged to simulate 20, 40, and 60 years of equivalent service life, and naturally aged cables retrieved from decommissioned plants after 10 and 24 years of service. The results showed that with the exception of Okonite and Samuel Moore cables, all three groups of cables passed the LOCA tests for equivalent of 20 and 40 years of service life. Failures observed for the Okonite and Samuel Moore cables are currently being addressed through the GSI-168 resolution process. The research showed that the naturally aged cables, when subjected to equivalent years of service life conditions in terms of thermal and radiation environment, performed better in terms of their ability to withstand LOCA conditions than the artificially aged cables. Therefore, the staff believes that additional testing to further validate the artificially aged cables representative of 30-40 year old cables is not warranted.

4. The staff and the industry should provide consistent guidance of the use of emergency operating procedures (EOPs) and severe accident management guidelines (SAMGs) as possible information sources to verify that equipment important to safety has not been inadvertently left out by the license renewal rule scoping process.

Response: The staff agrees that these documents are potential information sources for identifying the structures, systems, and components within the scope of the license renewal rule. SRP-LR Table 2.1-1, "Sample Listing of Potential Information Sources," lists EOPs as possible information sources and the staff will add the SAMGs to the table. The staff will also ask NEI to add these documents to NEI 95-10 Table 3.1-1, "Sample Listing of Potential Information Sources," as potential information sources.

Please let me know if the Committee has any further questions or comments.

Sincerely,

***/RA by John W. Craig Acting For/***

William D. Travers  
Executive Director  
for Operations

cc: Chairman Meserve  
Commissioner Dicus  
Commissioner McGaffigan  
Commissioner Merrifield  
SECY

- 4. The staff and the industry should provide consistent guidance of the use of emergency operating procedures (EOPs) and severe accident management guidelines (SAMGs) as possible information sources to verify that equipment important to safety has not been inadvertently left out by the license renewal rule scoping process.

Response: The staff agrees that these documents are potential information sources for identifying the structures, systems, and components within the scope of the license renewal rule. SRP-LR Table 2.1-1, "Sample Listing of Potential Information Sources," lists EOPs as possible information sources and the staff will add the SAMGs to the table. The staff will also ask NEI to add these documents to NEI 95-10 Table 3.1-1, "Sample Listing of Potential Information Sources," as potential information sources.

Please let me know if the Committee has any further questions or comments.

Sincerely,

***/RA by John W. Craig Acting For/***

William D. Travers  
Executive Director  
for Operations

cc: Chairman Meserve  
Commissioner Dicus  
Commissioner McGaffigan  
Commissioner Merrifield  
SECY

Distribution: See next page



See previous concurrence

C:\EDO response to ACRS 11-15~.wpd

OFFICE	RLSB	Tech Ed/LA	SC:RLSB	RLSB:BC
NAME	D. Solorio		P. T. Kuo	C. Grimes
DATE	12/8/00	12/06/00*	12/8/00	12/8/00
RES	DRIP:D	ADIP	NRR:D*	EDO
M. Mayfiled	D. Matthews	J. Johnson	S. Collins	W. Travers
12/12/00	12/12 /00	12/12/00	12/13/00	1/22/00

OFFICIAL RECORD COPY

Distribution: **G20000534**

RLSB RF

Travers

Paperiello

Miraglia

Norry

Graig

Burns

Reyes, RII

Collins

Johnson

Matthews

Grimes

Federline

Mayfield

Vora

Kuo

NRR Mail Room

Hylton

Coates

EDO

Solorio