



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

November 5, 2014

The Honorable Allison M. Macfarlane
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**SUBJECT: SUMMARY REPORT – 618th MEETING OF THE ADVISORY COMMITTEE
ON REACTOR SAFEGUARDS, OCTOBER 2-4, 2014**

Dear Chairman Macfarlane:

During its 618th meeting, October 2-4, 2014, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following report and memoranda:

REPORT

Report to Allison M. Macfarlane, Chairman, NRC, from John W. Stetkar, Chairman, ACRS:

- Report on the Safety Aspects of the License Renewal Application of the Callaway Plant, Unit 1, dated October 14, 2014

MEMORANDA

Memoranda to Mark A. Satorius, Executive Director for Operations, NRC, from Edwin M. Hackett, Executive Director, ACRS:

- Draft Regulatory Guides: DG-1245 and DG-5036, dated October 6, 2014
- Draft Final Regulatory Guide – Revision 3 of RG 7.10, dated October 6, 2014

HIGHLIGHTS OF KEY ISSUES

1. **Meeting with the Commission**

On October 2, 2014, the Committee met with the Commission to discuss the following topics:

- Overview of ACRS Activities
- Human Reliability Analysis (HRA) Models
- Biennial Review of the NRC Research Program
- Proposed Revision to 10 CFR 50.55a and Digital I&C
- SECY Paper on use of Qualitative Factors

Committee Action

No action was required.

2. Meeting with NRC Chairman, Allison M. Macfarlane

The Committee met with Chairman Macfarlane to discuss several items of mutual interest including Project AIM, qualitative versus quantitative factors considered in regulatory analyses, the Agreement State Program, agency activities in response to Fukushima, and the coordination of ACRS letters with SECY papers.

Committee Action

No action was required.

3. License Renewal Application of the Callaway Plant, Unit 1

The Committee met with representatives of the NRC staff and Ameren Missouri (the applicant) to discuss the Callaway license renewal application and the associated final Safety Evaluation Report (SER). The applicant's presentation provided an overview of the plant, identified major component replacements, and described their aging management programs and license renewal commitments. The staff's presentation described closure of the five open items identified in the draft SER. The open items were related to (1) scoping of fire protection systems, structures, and components; (2) reactor head closure studs; (3) reactor vessel internals; (4) small bore socket welds; and, (5) environmentally assisted fatigue in reactor coolant pressure boundary components. The staff also discussed the resolution of issues that were identified after the draft SER was issued. The staff concluded that the requirements of 10 CFR 54.29(a) were met for the license renewal of Callaway, Unit 1.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter dated October 14, 2014 concluding that the programs established and committed to by Ameren Missouri to manage age-related degradation provide reasonable assurance that Callaway can be operated in accordance with its current licensing basis for the period of extended operation without undue risk to the health and safety of the public. The Committee recommended that the Ameren Missouri application for renewal of the operating license for Callaway should be approved.

4. Clarification of the Process for Addressing Re-evaluated Flooding Hazards Identified from Japan Lessons Learned Activities for Operating Nuclear Power Plants

The Committee met with representatives of the NRC staff to discuss their plans to clarify the relationship between mitigating strategies for beyond-design-basis events and flooding re-evaluations. The staff described two possible regulatory approaches to ensure that functional capabilities are available following an external event that may challenge the equipment and strategies used to mitigate such an event. The staff stated that at a minimum the additional capabilities for dealing with beyond-design-basis flooding scenarios identified from Near Term Task Force Recommendation 2.1 will be provided by the requirements for improved mitigating strategies. It is also possible that circumstances at some nuclear power plants may warrant the NRC considering additional assessments and requirements. The staff has held meetings with industry and is preparing to issue a Commission paper on this topic in the near future.

Committee Action

This was an informational briefing. No Committee action was necessary. However, the Committee may review the Commission paper on this topic during a future meeting.

5. Assessment of the Quality of Selected NRC Research Projects

The Committee discussed the ACRS panels' reviews of the quality assessment of NRC research projects in NUREG/CR-7143, "Characterization of Thermal-Hydraulic and Ignition Phenomena in Prototypic, Full-Length Boiling Water Reactor Spent Fuel Pool Assemblies after a Postulated Complete Loss-of-Coolant Accident," and NUREG/CR-7148, "Confirmatory Battery Testing: The Use of Float Current Monitoring to Determine Battery State-of-Charge."

Committee Action

The Committee will complete its review of the quality assessment of these research projects during its November 6-8, 2014 meeting.

6. Draft Regulatory Guides

The Committee considered the following draft regulatory guides and decided not to review them. The Committee has no objection to the staff's proposal to issue the guides for public comment but would like an opportunity to review the draft final version of these guides following the public comment period.

- DG-1245, "Design and Inspection Criteria for Water-Control Structures Associated with Nuclear Power Plants"
- DG-5036, "Fitness for Duty Programs at New Reactor Construction Sites"

7. Draft Final Regulatory Guide

The Committee considered draft final Revision 3 of Regulatory Guide 7.10, "Establishing Quality Assurance Programs for Packaging Used in Transport of Radioactive Material," and decided not to review it. The Committee has no objection to the staff's proposal to issue this guide.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the EDO's response of August 28, 2014, to comments and recommendations included in the July 16, 2014 ACRS letter on Standard Review Plan Chapter 19 and Section 17.4. The Committee decided that it was not satisfied with the EDO's response and will consider a letter clarifying its concerns during its November 6-8, 2014 meeting.

SCHEDULED TOPICS FOR THE 619th ACRS MEETING

The following topics are scheduled for the 619th ACRS meeting, to be held on November 6-8, 2014:

- Meeting with Representatives of the Nuclear Energy Institute
- SECY-14-XXXX, "Proposed Updates of Licensing Policies, Rules, and Guidance for Future Reactor Applications"
- Draft Regulatory Guide DG-1299, "Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule"
- Meeting with NRC Commissioner, William C. Ostendorff
- Assessment of the Quality of Selected NRC Research Programs - FY 2014

Sincerely,

/RA/

John W. Stetkar
Chairman

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/RA/

John W. Stetkar
Chairman

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