



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

July 7, 2015

The Honorable Stephen G. Burns
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: SUMMARY REPORT – 625th MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, June 10-12, 2015

Dear Chairman Burns:

During its 625th meeting, June 10-12, 2015, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following reports and memoranda:

REPORTS

Reports to Stephen G. Burns, Chairman, NRC, from John W. Stetkar, Chairman, ACRS:

- “Grand Gulf Nuclear Station Maximum Extended Load Line Limit Analysis Plus (MELLLA+) License Amendment Request,” dated June 24, 2015
- “PSEG Early Site Permit”, dated June 25, 2015

MEMORANDA

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

- Draft Regulatory Guide, dated June 15, 2015
- DG-1323, “Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Startup Testing”

- Draft Final Regulatory Guides, dated June 15, 2015
 - RG 1.215, "Guidance for ITAAC Closure Under 10 CFR Part 52"
 - RG 5.84, "Fitness-for-Duty Programs at New Reactor Construction Sites"
- Regulatory Information Summary, dated June 15, 2015
 - Regulatory Information Summary 2014-XX, "Applicability of ASME Code Case N-770-1 as Conditioned in 10 CFR 50.55a, 'Codes and Standards', to Branch Connection Butt Welds"

HIGHLIGHTS OF KEY ISSUES

1. Meeting with the Commission

On June 11, 2015, the Committee met with the Commission to discuss the following topics:

- Overview
- Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events
- Containment Hardened Vents Interim Staff Guidance JLD-ISG-2015-01
- Cumulative Effects of Regulation Process Enhancements and Risk Prioritization Initiative
- Assessment of the Quality of NRC Research Projects

Committee Action

No action was required.

2. Meeting with the Executive Director for Operations

On June 11, 2015, the Committee met with the Executive Director for Operations to discuss topics of mutual interest.

Committee Action

No action was required.

3. PSEG Early Site Permit

The Committee met with representatives of the NRC staff and PSEG to discuss the PSEG early site permit. PSEG applied for a 20-year early site permit for a location adjacent to its existing nuclear power plants, Salem Units 1 and 2 and Hope Creek Unit 1. Review of the application was complicated by new requirements for seismic events, flooding events, and emergency planning imposed in the aftermath of the reactor accident at Fukushima. The proposed site is located in a region of generally low seismic activity. The proposed site is, however, susceptible to flooding. PSEG proposed that any unit located on the site be a so-called “dry” unit that does not require water tight closures. Applicant analyses demonstrated that the limiting flood, determined to be a storm surge, would remain below the proposed grade level. The staff’s review was thorough and was effectively coordinated with other Federal agencies. The safety evaluation report contained no open items.

Committee Action

The Committee issued a report to the NRC Chairman on this matter, dated June 25, 2015, recommending that the early site permit be issued.

4. Documents that Support the Mitigation of Beyond-Design-Basis Events Rulemaking

The Committee met with representatives of the NRC staff and the Nuclear Energy Institute (NEI) to discuss the most recent updates to the staff’s draft Regulatory Guide (DG)-1301, “Flexible Mitigation Strategies for Beyond-Design-Basis Events,” and NEI 12-06, Appendix G, “Mitigating Strategies Flood Hazard Information Integrated Assessment.” The staff described their proposed responses to the recommendations documented in the April 22, 2015 ACRS letter regarding this subject. The staff also provided an update on the status of DG-1301 development which included information regarding guidance for the reevaluated seismic hazard. NEI described the Appendix G mitigating strategies assessment process and the document status and schedule.

Committee Action

This was an information briefing. No Committee action was necessary. The Committee plans to continue interactions with the staff on all important matters related to the Fukushima efforts, including the draft final version of this proposed rulemaking.

5. Update on Reactor Oversight Process (ROP)

The Chairman of the Plant Operations and Fire Protection Subcommittee provided the Committee a summary of CY 2014 significant operating experience. The Subcommittee Chairman discussed significant ROP findings, highlights from the FY 2014 “Report to Congress on Abnormal Occurrences,” and significant findings from the “Summary of Fitness for Duty Program Performance Reports for Calendar Year 2013.” The Subcommittee will use this experience to help inform their review of staff proposed ROP enhancements.

Committee Action

This was an information briefing. No Committee action was necessary.

6. Grand Gulf MELLLA+ License Amendment

The Committee met with representatives of the NRC staff, Entergy, and General Electric Hitachi to discuss a license amendment request for operation of Grand Gulf Nuclear Station Unit 1 in the expanded Maximum Extended Load Line Limit Analysis Plus (MELLLA+) domain and the associated NRC staff draft safety evaluation.

Grand Gulf currently operates in the Maximum Extended Load Line Limit Analysis domain. The expanded operating domain in MELLLA+ increases operating flexibility by allowing control of reactivity at maximum power by changing recirculation flow rather than control rod insertion and withdrawal. Operation in the MELLLA+ domain could adversely affect the plant's susceptibility to instability and its response to anticipated transients without scram. Analysis results show that mitigating actions in the emergency operating procedures (e.g., feedwater flow runback to uncover the feedwater spargers and early boron injection) are effective in the MELLLA+ operating domain if operator actions are accomplished within a specified time. The ACRS examined the effects of conservatisms assumed in the analyses and concluded that there is acceptable margin for Grand Gulf operation in the MELLLA+ domain.

Committee Action

The ACRS issued a report to the NRC Chairman on this matter, dated June 24, 2015, and made the following recommendation and conclusion: 1) the Entergy application for Grand Gulf operation in the MELLLA+ domain should be approved, subject to the conditions and limitations identified in the staff's draft safety evaluation, and 2) the proposed Grand Gulf operator response time and other measures, including the limitations and conditions adopted by the licensee, provide reasonable assurance of adequate protection from instabilities during MELLLA+ operation at Grand Gulf.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the Executive Director for Operations' response of May 22, 2015, to comments and recommendations included in the April 20, 2015 ACRS letter on Topical report NEDC-33766P, "GEH Simplified Stability Solution (GS3)". The Committee was satisfied with the Executive Director for Operations' response.

- The Committee considered the Executive Director for Operations' response of April 9, 2015, to comments and recommendations included in the March 11, 2015 ACRS letter on Draft SECY Paper, "Cumulative Effects of Regulation Process Enhancements and Risk Prioritization Initiatives: Response to Commission Direction and Recommendations". The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of April 6, 2015, to comments and recommendations included in the March 13, 2015 ACRS letter on "Report on the Safety Aspects of the License Renewal Application for the Sequoyah Nuclear Plant, Units 1 and 2." The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of April 17, 2015, to comments and recommendations included in the February 26, 2015 ACRS letter on "Proposed Revision for 10 CFR 50.55a to Incorporate by Reference IEEE Standard 603-2009, 'IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Station'." The Committee continues to disagree with the staff's position on Recommendation 2 from our August 5, 2014 letter on this topic.

SCHEDULED TOPICS FOR THE 626th ACRS MEETING

The following topics are scheduled for the 626th ACRS meeting, to be held on July 8-10, 2015:

- Nine Mile Point Unit 2 MELLLA+ License Amendment
- Digital Instrumentation & Control Probabilistic Risk Analyses
- Assessment of the Quality of Selected Research Projects

Sincerely,

/RA/

John W. Stetkar
Chairman

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John W. Stetkar
Chairman

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