



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

March 16, 2015

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

SUBJECT: SUMMARY REPORT – 621st MEETING OF THE ADVISORY COMMITTEE
ON REACTOR SAFEGUARDS, FEBRUARY 5-6, 2015

Dear Chairman Burns:

During its 621st meeting, February 5 -6, 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:

- Final ACRS Review of Watts Bar Nuclear Unit 2 Operating License Application, dated February 12, 2015
- Report on the Safety Aspects of the Nuclear Innovation North America, LLC Combined License Application for South Texas Project Nuclear Station, Units 3 and 4, dated February 19, 2015

LETTERS

Letters to Mark A. Satorius, Executive Director for Operations, NRC, from John W. Stetkar, Chairman, ACRS:

- Draft Final Generic Letter 20XX-XX, "Treatment of Natural Phenomena Hazards at Fuel Cycle Facilities," dated February 20, 2015
- 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 Stations," dated February 26, 2015

MEMORANDA

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

- Draft Regulatory Guides DG-1313, DG-5050, and DG-1322, dated February 12, 2015
- Proposed Revision to Branch Technical Position CA-BTP, dated February 12, 2015

HIGHLIGHTS OF KEY ISSUES

1. Final ACRS Review of Watts Bar Nuclear Unit 2 Operating License Application

The Committee met with representatives of the NRC staff and the Tennessee Valley Authority (TVA) to review the current status of the construction, inspection, and licensing activities related to the Watts Bar Nuclear Unit 2 (WBN 2) Operating License application.

During the meeting, TVA provided an overview of the WBN 2 project and discussed various technical topics including fuel thermal conductivity degradation, GDC-5, hydrology, and fire protection. The staff provided an overview of the project status, discussed issues raised in past ACRS letters, the status of regional inspections, and future milestones related to the WBN 2 Operating License.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated February 12, 2015, concluding that WBN 2 can operate without undue risk to the health and safety of the public, and the WBN 2 Operating License should be approved following completion of remaining staff inspections and closure of remaining open items.

The Committee also strongly endorsed development of a probabilistic flooding hazard analysis methodology for future use, consistent with risk-informed, performance-based approaches to natural hazard assessment.

2. Final Safety Evaluation Report Associated with the South Texas Project (STP), Units 3 and 4, Combined License Application (COLA) Referencing the Advanced Boiling Water Reactor (ABWR) Design

The Committee met with representatives of the NRC staff and Nuclear Innovation North America (NINA) to review the staff's Advanced Safety Evaluation Report for NINA's COLA for STP Units 3 and 4. NINA discussed site characteristics, the STP main cooling reservoir, ABWR extended station blackout capabilities, NRC Bulletin 2012-01, "Design Vulnerability in Electric Power System," and fire-induced spurious signals. The staff discussed their flooding and seismic reviews, the applicable Fukushima Near-Term Task Force (NTTF) recommendations, NRC Bulletin 2012-01, and fire-induced spurious actuation signals in digital instrumentation and control (DI&C) cabinets.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated February 19, 2015, concluding that there is reasonable assurance that STP Units 3 and 4 can be built and operated without undue risk to the health and safety of the public, and that the ABWR design and the STP Units 3 and 4 site satisfy requirements resulting from the Fukushima NTTF recommendations. Additionally, the Committee identified certain issues that the staff should address with the issuance of the STP Combined License. These issues involve the final plant-specific turbine missile analysis and the staff's proposed weekly turbine valve test program.

The Committee also recommended that the Standard Review Plan should be updated to address acceptance criteria for turbines with monoblock rotors, and the staff should consider further the possibility of fire-induced spurious actuations that may result from heat or fire damage to DI&C cabinets with fiber-optic cables.

3. Draft Final Generic Letter 20XX-XX, "Treatment of Natural Phenomena Hazards at Fuel Cycle Facilities"

The Committee met with representatives of the staff to discuss draft Generic Letter 20XX-XX, "Treatment of Natural Phenomena Hazards at Fuel Cycle Facilities." The purpose of the generic letter is to request information to verify compliance with regulations regarding natural phenomena hazards effects (e.g., earthquake, high winds). In addition to providing an overview of the generic letter, the staff also discussed the regulatory framework, the predominant hazards, and post-Fukushima actions at fuel cycle facilities.

Committee Action

The Committee issued a letter to the Executive Director for Operations on this matter, dated February 20, 2015, recommending that the generic letter be issued.

4. NUREG-0800, draft Revision 7, "Standard Review Plan (SRP) for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Section 13.1.2-13.1.3, "Operating Organization"

The Committee met with representatives of the staff to discuss proposed changes to the SRP regarding "Operating Organization" (Section 13.1.2-13.1.3). The revised SRP incorporates lessons learned from recent light water reactor reviews and provides clarification to guidance that historically resulted in requests for additional information during application reviews.

Committee Action

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

5. 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 versions of these guides following the public comment period.

- Draft Regulatory Guide 1313, Revision 2, "Protection Against Extreme Wind Events and Missiles for Nuclear Power Plants"
- Draft Regulatory Guide 5050, "Selection of Material Balance Areas and Item Control Areas"
- Draft Regulatory Guide 1322, "Alternate Risk-Informed Approach for Addressing the Effects of Debris on Post-Accident Long-Term Core Cooling"

6. Revision to Branch Technical Positions

The Committee considered the proposed revision to the Concentration Averaging and Encapsulation Branch Technical Position, Revision 1 and decided not to review it. The Committee has no objection to the staff's proposal to issue the Branch Technical Position.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the Executive Director for Operations' response of December 15, 2014, to comments and recommendations included in the September 15, 2014 ACRS letter on draft Generic Letter 2015-XX, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools." The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of December 22, 2014, to comments and recommendations included in the November 13, 2014 ACRS letter on SRP Chapter 19 and Section 17.4. The staff acknowledged its response has not resolved the Committee's concerns regarding SRP Chapter 19 and Section 17.4 and the NRC's current endorsement of probabilistic risk assessment conformance to ASME/ANS Capability Category I. The Committee decided that its report and the staff's response adequately describe the differing points of opinion on this matter, and no further written exchange was required.
- The Committee considered the Executive Director for Operations' response of October 16, 2014, to comments and recommendations included in the August 5, 2014 ACRS letter on the proposed revision of 10 CFR 50.55a to incorporate by reference IEEE Standard 603-2009, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," and associated draft Revision 2 to Regulatory Guide 1.153, "Criteria for the Power, Instrumentation, and Control Systems for Nuclear Power Plants." The Committee issued a letter to the Executive Director for Operations on this matter, dated February 26, 2015, providing additional clarification regarding its recommendations.

SCHEDULED TOPICS FOR THE 622nd ACRS MEETING

The following topics are scheduled for the 622nd ACRS meeting, to be held on March 5-7, 2015:

- Meeting with the Commission
- Industry Prioritization and Scheduling
- Sequoyah Units 1 and 2 License Renewal Application

Sincerely,

/RA/

John W. Stetkar
Chairman

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Sincerely,

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John W. Stetkar
Chairman

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