



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

December 1, 2015

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

**SUBJECT: SUMMARY REPORT – 629<sup>th</sup> MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, NOVEMBER 4-7, 2015**

Dear Chairman Burns:

During its 629<sup>th</sup> meeting, November 4-7, 2015, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following reports, letters, and memorandum:

REPORTS

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

- “Draft SECY Paper, ‘Recommendations on Issues Related to Implementation of a Risk Management Regulatory Framework’,” dated November 13, 2015
- “Report on the Safety Aspects of the License Renewal Application for Davis-Besse Nuclear Power Station,” dated November 12, 2015
- “Plans for Resolving the NRC Near-Term Task Force Open Fukushima Tier 2 and 3 Recommendations,” dated November 16, 2015

LETTERS

Letter to Victor M. McCree, Executive Director for Operations, NRC, from John W. Stetkar, Chairman, ACRS:

- “The Revised Fuel Cycle Oversight Process Cornerstones,” dated November 17, 2015

Letter to Michael Weber, Director, Office of Nuclear Regulatory Research, NRC, from John W. Stetkar, Chairman, ACRS:

- “ACRS Assessment of the Quality of Selected NRC Research Projects - FY 2015,” dated November 17, 2015

#### MEMORANDUM

Memorandum to Victor M. McCree, Executive Director for Operations, NRC, from Edwin M. Hackett, Executive Director, ACRS:

- “Draft Regulatory Guide,” dated November 9, 2015
  - DG-4025, “Assessment of Radioactive Discharges in Ground Water to the Unrestricted Area at Nuclear Power Plant Sites”

#### HIGHLIGHTS OF KEY ISSUES

##### 1. Risk Management Regulatory Framework

The Committee met with representatives of the NRC staff to review a draft of the SECY paper, “Recommendations on Issues Related to Implementation of a Risk Management Regulatory Framework.” The staff developed the draft SECY paper, in part, to respond to the Chairman’s tasking memorandum, dated June 14, 2012, that directed the staff to “review NUREG-2150 and provide a paper to the Commission that would identify options and make recommendations, including the potential development of a Commission policy statement. In developing its options, the staff should consider how modifications to the regulatory framework could be incorporated into important agency policy documents, such as the Strategic Plan.”

#### Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated November 13, 2015, with the following conclusions and recommendations: 1) The principles of a risk management regulatory framework should be established as a vision for how the agency will regulate 10 to 15 years in the future, 2) The staff should work with licensees to develop a voluntary approach for a risk-informed alternative licensing basis. This approach should evolve from initial applications by interested operating reactor licensees. Having a comprehensive framework in place will be especially important for future licensing and oversight of new

reactors, 3) The Committee agrees with the staff's conclusion to not establish a formal "design-basis extension" category of events at this time, 4) A Commission policy statement that includes the definition, objectives, and principles of defense-in-depth can be deferred until there is clear direction to move forward with a regulatory framework that encompasses an integrated risk-informed defense-in-depth concept, and 5) A new or revised Commission policy statement on agency-wide adoption of a risk management regulatory framework is not needed.

## 2. Davis-Besse Nuclear Power Station License Renewal

The Committee met with representatives of the NRC staff and FirstEnergy Nuclear Operating Company (FENOC) to discuss the Davis-Besse Nuclear Power Station license renewal application and the associated final safety evaluation report. During the meeting, FENOC provided an overview of the plant, identified major component replacements, and described their aging management programs and license renewal commitments. The staff discussed closure of four open items identified in the draft safety evaluation report that addressed operating experience, reactor vessel neutron embrittlement, pressure-temperature limits, and cracking in the shield building. The staff concluded that the applicant had adequately addressed their concerns and closed the open items. The staff also concluded that the requirements of 10 CFR 54.29(a)(1) and (a)(2) were met for the license renewal of Davis-Besse, and the operating license should be renewed.

### Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated November 12, 2015, with the following conclusion and recommendations: 1) The established programs and commitments by FENOC to manage age-related degradation, including LRA Amendment 60 submitted in October 2015, provide reasonable assurance that the Davis-Besse Nuclear Power Station can be operated in accordance with their current licensing bases for the period of extended operation without undue risk to the health and safety of the public, 2) An amendment to the current license to include the methodologies used to analyze the effects of concrete cracking in the shield building should be completed prior to commencement of the period of extended operation, and 3) FENOC's application for renewal of the operating license for the Davis-Besse Nuclear Power Station should be approved.

## 3. Fukushima Tier 2/3

The Committee met with the NRC staff and the Nuclear Energy Institute to discuss the staff's proposed plans for resolving the open Fukushima Near-Term Task Force Tier 2 and 3 Recommendations. The Committee also reviewed the staff's publicly available draft White

Paper prepared to support Commission paper, SECY-15-0137, "Proposed Plans for Resolving Open Fukushima Tier 2 and 3 Recommendations." The staff indicated that their initial evaluation of the remaining Tier 2 and 3 recommendations determined that the existing NRC regulatory framework and requirements are adequate, and no further regulatory action is warranted. However, the staff has not yet completed discussions with the ACRS and other stakeholders regarding the results from some of its assessments, and in some cases additional staff assessment is still underway. As such, the staff's resolution plans for the open recommendations are categorized into three types of actions for consideration by the Commission:

Group 1 - Recommendations that should be closed now because the staff has determined that the NRC's existing regulatory framework and requirements are adequate, and that no further regulatory action is warranted. Required assessment has been performed, and appropriate interaction with the ACRS and stakeholders has been completed. These include all recommendations in Enclosures 3, 6, 8, and 9, and all but one recommendation in Enclosure 7 to SECY-15-0137.

Group 2 - Recommendations that the staff's initial assessment has concluded should be closed, but for which interaction with either the ACRS or external stakeholders is warranted prior to finalizing the assessment. These include recommendations in Enclosures 4 and 5 to SECY-15-0137. The staff proposes to submit closure recommendations to the Commission in March 2016.

Group 3 - Recommendations for which the current basis for closure could benefit from additional assessment and documentation by the staff, along with ACRS or external stakeholder interaction. These include recommendations in Enclosures 1 and 2, and one recommendation in Enclosure 7 to SECY-15-0137. The staff proposes to submit closure recommendations to the Commission in December 2016.

#### Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated November 16, 2015, with the following conclusions: 1) The Committee agrees with the staff's assignment of each of the open Tier 2 and 3 recommendations into three resolution groups, 2) The Committee agrees with the staff's conclusions for the Group 1 recommendations, that the NRC's existing regulatory framework and requirements are adequate and that no further regulatory action is warranted, and 3) The Committee will review the staff's evaluations and their closure proposals and plans associated with the Group 2 and Group 3 recommendations prior to their submittal to the Commission in 2016.

#### 4. Status of the Revised Fuel Cycle Oversight Process

The Committee met with the NRC staff to discuss the current status of the revised Fuel Cycle Oversight Process cornerstones. The staff's presentation covered the history of efforts to improve the Fuel Cycle Oversight Process and the activities associated with the revised Fuel Cycle Oversight Process project, such as the approach for developing the cornerstones, the recommended cornerstones, and considerations of cross-cutting issues for these cornerstones. During the meeting, the staff also discussed the public comments received on the cornerstones document.

#### Committee Action

The Committee issued a letter to the NRC Executive Director for Operations on this matter dated November 17, 2015, concluding that the staff has proposed an adequate set of candidate safety cornerstones for the further development of a revised fuel cycle oversight process.

#### RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

None.

#### SCHEDULED TOPICS FOR THE 630<sup>th</sup> ACRS MEETING

The following topics are scheduled for the 630<sup>th</sup> ACRS meeting, to be held on December 3-5, 2015:

- 10 CFR 50.46c Rulemaking Activities
- Duke Energy's Lee Combined License Application Review
- Discussion of Potential Commission Meeting Topics

Sincerely,

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John W. Stetkar  
Chairman

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Committee Action

The Committee issued a letter to the NRC Executive Director for Operations on this matter dated November 17, 2015, concluding that the staff has proposed an adequate set of candidate safety cornerstones for the further development of a revised fuel cycle oversight process.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

None.

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Sincerely,

*/RA/*

John W. Stetkar  
Chairman

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