



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

October 3, 2016

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

SUBJECT: SUMMARY REPORT – 636th MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, SEPTEMBER 8-10, 2016

Dear Chairman Burns:

During its 636th meeting, September 8-10, 2016, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following reports, letters, and memoranda:

REPORTS

Reports to Stephen G. Burns, Chairman, NRC, from Dennis C. Bley, Chairman, ACRS:

- “Report on the Safety Aspects of the Florida Power and Light Company’s Combined License Application for Turkey Point Units 6 and 7,” dated September 16, 2016
- “Report on the Safety Aspects of the License Renewal Application of the Fermi 2 Nuclear Power Plant,” dated September 16, 2016

LETTERS

Letters to Victor M. McCree, Executive Director for Operations, NRC, from Dennis C. Bley, Chairman, ACRS:

- “Pacific Gas and Electric Diablo Canyon Units 1 and 2 Digital Process Protection System Upgrade License Amendment Request,” dated September 22, 2016
- “Response to the July 5, 2016 Staff Letter Regarding Interim Staff Guidance JLD-ISG-2016-01 for Focused Evaluations and integrated Assessments of Reevaluated Flooding Hazards,” dated September 19, 2016

MEMORANDA

Memoranda to Victor M. McCree, Executive Director for Operations, NRC, from Andrea D. Veil, Executive Director, ACRS:

- “Regulatory Guides,” dated September 16, 2016
 - Draft Regulatory Guide DG-1331, “Service Level I, II, III, and In-Scope License Renewal Protective Coatings Applied to Nuclear Power Plants”
 - Draft Regulatory Guide DG-1337, “Restart of a Nuclear Power Plant Shut Down by a Seismic Event”
 - Draft Regulatory Guide DG-4026, “Preparation of Environmental Reports for Nuclear Power Stations”
 - Draft Final Regulatory Guide 1.231, “Acceptance of Commercial-Grade Design and Analysis Computer Programs Used in Safety-Related Applications for Nuclear Power Plants”
- “Withdrawal of Regulatory Guide,” dated September 15, 2016
 - Regulatory Guide 5.22, “Assessment of the Assumptions of Normality (Employing Individual Observed Values)”
- “Documentation of Receipt of Applicable Official NRC Notices to the Advisory Committee on Reactor Safeguards for September 2016,” dated September 15, 2016

HIGHLIGHTS OF KEY ISSUES

1. Turkey Point Combined License Application

The Committee met with representatives of the NRC staff and Florida Power & Light Company (FPL or applicant) to discuss the Combined License Application (COLA) for the Turkey Point Units 6 and 7. During the meeting, FPL provided an overview of the Turkey Point plant and discussed various topics including population density, sea level rise, deep well Injection system, and aviation accidents core damage frequency. The staff provided an overview of the safety evaluation review and discussed plant-specific issues such as Technical Support Center (TSC) location, TSC power supplies, evaluation time estimate, and aircraft hazards.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated September 16, 2016, with the following conclusion and recommendations: 1) There is reasonable assurance that Turkey Point Units 6 and 7 can be built and operated without undue risk to the health and safety of the public. The FPL COLA for these units should be approved. 2) The following proposed site-specific departures from the AP1000 design control document should be approved.

- a. Consolidation of the Technical Support Center to provide support to Turkey Point Units 6 and 7.
- b. Meteorological exceedance for the operating basis wind speed and maximum safety and maximum normal wet bulb air temperatures.
- c. Exclusion area boundary minimum distance.

3) Staff should consider if existing guidance for estimating future sea level rise and guidance for location of the TSC should be updated to reflect changing circumstances.

2. Pacific Gas and Electric Diablo Canyon Units 1 and 2 Digital Process Protection Replacement License Amendment Request

The Committee met with representatives of the NRC staff and Pacific Gas and Electric (PG&E) to discuss the Diablo Canyon Power Plant Units 1 and 2 digital process protection system (PPS) replacement license amendment request and the associated draft safety evaluation. During the meeting, PG&E provided an overview of the proposed PPS replacement and discussed the significant issues associated with the replacement. The staff presented an overview of the safety evaluation review. The staff also compared the proposed PPS replacement design to the fundamentals of reliable digital and software-based safety system instrumentation and control design: redundancy, independence, deterministic software cycle processing, diversity and defense-in-depth, and external and internal control of access.

Committee Action

The Committee issued a letter to the Executive Director for Operations on this matter, dated September 22, 2016, with the recommendation that the Diablo Canyon Units 1 and 2 digital process protection system replacement license amendment request should be approved.

3. Fermi 2 License Renewal Application

The Committee met with representatives of the NRC staff and DTE Electric Company (DTE) to discuss the Fermi 2 license renewal application and the associated final safety evaluation report. During the meeting, DTE provided an overview of the plant and described their aging management programs and license renewal commitments. The staff discussed closure of one open item identified in the draft safety evaluation report that dealt with the methods used to determine the environmental effects on cumulative usage factors derived from the fatigue analysis. The staff concluded that the applicant had adequately addressed their concerns and closed the open item. The staff also concluded that the requirements of 10 CFR 54.29(a)(1) and (a)(2) were met for renewal of Fermi 2, and the operating license should be approved.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated September 16, 2016, with the following conclusion and recommendation: 1) The programs established and committed to by DTE to manage age-related degradation provide reasonable assurance that Fermi 2 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, and 2) DTE's application for renewal of the operating license for Fermi 2 should be approved.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the Executive Director for Operations' response of June 17, 2016, to the May 17, 2016 ACRS letter, "NRC Staff Updated Assessment of Fukushima Tier 2 Recommendations Related to Evaluation of Natural Hazards other than Seismic and Flooding." The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of July 11, 2016, to the May 18, 2016 ACRS letter, "NuScale Power, LLC Licensing Topical Report, "Risk Significance Determination." The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of July 5, 2016, to the May 18, 2016 ACRS letter, "Draft Interim Staff Guidance JLD-ISG-2016-01, 'Guidance for Activities Related to Near-Term Task Force Recommendation 2.1, Flooding Hazard Reevaluation; Focused Evaluation and Integrated Assessment'." The Committee issued a response to the EDO requesting briefings to better understand how the site-specific evaluations are performed in practice and the staff's considerations during their reviews.

SCHEDULED TOPICS FOR THE 637th ACRS MEETING

The following topics are scheduled for the 637th ACRS meeting, to be held on October 6-8, 2016:

- Commission Meeting
- Grand Gulf Nuclear Station License Renewal Application
- Regulatory Guide 1.26, Revision 5, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants"

Sincerely,

/RA/

Dennis C. Bley
Chairman

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Dennis C. Bley
Chairman

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