



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 27, 2018

Dr. Michael L. Corradini, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS' LETTER REGARDING DRAFT SECY PAPER, "FUNCTIONAL CONTAINMENT PERFORMANCE CRITERIA FOR NON-LIGHT WATER REACTOR DESIGNS"

Dear Dr. Corradini:

I am responding to your letter dated May 10, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18108A404), in which the Advisory Committee on Reactor Safeguards (ACRS) provided its findings and recommendations concerning the U.S. Nuclear Regulatory Commission draft SECY paper, "Functional Containment Performance Criteria for Non-Light Water Reactor Designs" (ADAMS Accession No. ML18031A721).

The staff appreciates the Committee's review of the draft SECY paper and associated references as well as the thoughtful discourse during the February 22, 2018, Future Plant Designs Subcommittee and April 5, 2018, ACRS Full Committee meetings. In its letter, the Committee noted several conclusions. Specifically, the concepts of containment, confinement, and functional containment, as well as the need for them, have been under discussion for decades. With one exception (Fort St. Vrain), no commercial reactor has been licensed without a [pressure-retaining or pressure-suppression] containment. Licensing a plant under functional containment performance criteria will be a major change in the implementation of regulations. Also, the non-light water reactor functional containment principles proposed in the staff paper provide a vision for setting licensing policy and developing functional containment performance criteria. Finally, a technology-inclusive, risk-informed, performance-based methodology should be adopted for establishing performance criteria for structures, systems, and components, and corresponding programs serving to limit the release of radioactive materials from non-light water reactor designs.

The Committee recommended that a functional containment should include multiple barriers as defense-in-depth features that should be minimally dependent upon each other and diverse in nature. The staff notes that diversity and defense-in-depth as it relates to functional containment performance will be addressed in future interactions and papers such as the current activities related to the Licensing Modernization Project.

Based on the Committee's recommendation, the staff will finalize the draft SECY paper and send it to the Commission for approval. The staff appreciates the ACRS' review and feedback. The staff looks forward to further interaction with the Committee on other upcoming advanced non-light water topics.

Sincerely,

/RA/

Victor M. McCree
Executive Director
for Operations

cc: Chairman Svinicki
Commissioner Baran
Commissioner Burns
Commissioner Caputo
Commissioner Wright
SECY

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LETTER REGARDING DRAFT SECY PAPER, "FUNCTIONAL CONTAINMENT
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***via email**

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