



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

March 24, 2017

Dr. Dennis Bley, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: REVISION OF REGULATORY GUIDANCE FOR EVALUATING THE EFFECTS
OF LIGHT-WATER REACTOR WATER ENVIRONMENTS IN FATIGUE
ANALYSES OF METAL COMPONENTS

Dear Dr. Bley:

I am writing in response to your letter of February 22, 2017 (Agencywide Documents Access and Management System Accession No. ML17052A313), in which the Advisory Committee on Reactor Safeguards (ACRS or the Committee) reported on its review of Regulatory Guide 1.207, "Guidelines for Evaluating the Effects of Light-Water Reactor [LWR] Water Environments in Fatigue Analyses of Metal Components," and associated NUREG/CR-6909, Revision 1, "Effect of LWR Water Environments on the Fatigue Life of Reactor Materials."

The staff of the U.S. Nuclear Regulatory Commission (NRC) appreciates the insights provided by the Committee and the substantial attention the ACRS has devoted to reviewing Regulatory Guide 1.207 and associated NUREG/CR-6909. The purpose of Regulatory Guide 1.207 is to describe methods and procedures that the NRC staff considers acceptable for use in determining the acceptable fatigue lives of components evaluated by a cumulative usage factor calculation in accordance with the fatigue design rules in Section III, "Rules for Construction of Nuclear Power Plant Components," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) to account for the effects of LWR water environments.

In response to ACRS Recommendation 1, I am confirming that the staff is taking the necessary steps to issue Revision 1 of Regulatory Guide 1.207 and Revision 1 of NUREG/CR-6909. This should be completed within the next few months.

In response to ACRS Recommendation 2, the staff has been engaged in activities related to the ASME Code, such as Code Case N-792, to ensure that the code adequately addresses environmental fatigue effects. The staff plans to continue to support future revisions to this Code Case and other related Code Cases and Code actions. The goal is to incorporate these Code activities into the regulations through Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a, "Codes and Standards." The NRC staff values the Committee's review.

Sincerely,

/RA/

Victor M. McCree
Executive Director
for Operations

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cc: Chairman Svinicki
Commissioner Burns
Commissioner Baran
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