



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

May 26, 2021

Matthew W. Sunseri, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**SUBJECT: REGULATORY GUIDE 4.26, "VOLCANIC HAZARDS ASSESMENT FOR
PROPOSED NUCLEAR POWER REACTOR SITES"**

Dear Mr. Sunseri:

Thank you for your letter dated April 21, 2021 (Agencywide Documents Access and Management System Accession No. ML21106A210), about the Advisory Committee on Reactor Safeguards (ACRS) review of Regulatory Guide (RG) 4.26, "Volcanic Hazards Assessment for Proposed Nuclear Power Reactor Sites." I appreciate the time and effort the ACRS devoted to this subject, as reflected in meetings held with the ACRS Subcommittees for Future Plant Designs and Regulatory Policies and Practices on February 20, 2020, and the ACRS Full Committee on April 8, 2021.

Your letter contained three conclusions and recommendations; the U.S. Nuclear Regulatory Commission (NRC) staff's responses follow:

Conclusion and Recommendation 1:

RG 4.26 provides reasonable guidance for conducting volcanic hazards assessments for nuclear facilities.

NRC Staff Response:

The staff appreciates the feedback from the ACRS and is revising the guide, where appropriate, based on the comments and suggestions provided in the letter.

Conclusion and Recommendation 2:

The staff should consider enhancing the text as described in this report. Trial applications of the guide for specific facilities and locations are needed to ensure it can be effectively and efficiently applied. Any problems identified during trial applications should be addressed by timely revisions.

NRC Staff Response:

As noted in Recommendation 1, as appropriate, the staff is revising the text of the guide based on feedback contained in the letter. The staff has also reached out to various industry stakeholders to determine the level of interest in supporting a tabletop exercise or pilot project using the guide. While there are no firm plans at this time, the staff remains open to the idea of supporting a tabletop exercise or pilot project in the future.

Conclusion and Recommendation 3:

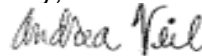
Research is needed to establish the impact of volcanic hazards on the performance of equipment and personnel, inside and outside a facility, if applicants and staff are to fully implement the proposed analyses.

NRC Staff Response:

The staff agrees that additional research on the effects of volcanic hazards on the performance of equipment and personnel at nuclear facilities in some areas may be beneficial, and is looking to leverage ongoing research to obtain additional information. For example, the staff was recently made aware of a proposed research project sponsored by the International Atomic Energy Agency that will consider the effects of volcanic ash on nuclear facilities. The staff is reaching out through the appropriate channels for additional information and awareness about this future project. Once this project is completed, the staff will consider any new information and may revise the guide.

The staff appreciates your review of RG 4.26 and looks forward to future interactions with the ACRS on topics related to external hazards.

Sincerely,



Signed by Veil, Andrea
on 05/26/21

Andrea D. Veil, Director
Office of Nuclear Reactor Regulation

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