



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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March 12, 2021

MEMORANDUM TO: Louise Lund, Director
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Meraj Rahimi, Branch Chief **/RA/**
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: RESULTS OF PERIODIC REVIEW OF REGULATORY GUIDE 1.102,
Revision 1, "FLOOD PROTECTION FOR NUCLEAR POWER PLANTS"

The Office of Nuclear Regulatory Research and the Office of Nuclear Reactor Regulation staff have reviewed Revision 1 of Regulatory Guide (RG) 1.102, "Flood Protection for Nuclear Power Plants." As discussed in Management Directive 6.6, "Regulatory Guides," the NRC staff reviews RGs approximately every 10 years to ensure that the RGs continue to provide useful guidance. The results of the staff's review of RG 1.102, Revision 1, are summarized in the enclosed document.

Based on the results of the periodic review, the staff concludes that revision of RG 1.102 is warranted. Flood protection features and procedures for civil infrastructure have evolved considerably since the current revision of RG 1.102 was issued in 1976. Perception of the risk that external flooding may pose to nuclear power plants has also evolved considerably during this time frame based on operational experience of flooding events at several nuclear power plants. In addition, proposed nuclear power plant designs, as well as potential applications and siting locations are rapidly evolving away from large light-water reactors (e.g. small modular reactors, micro reactors, non-light-water reactors). These issues warrant revising RG 1.102, Revision 1.

Any questions should be directed to the contacts listed in this memorandum.

Enclosure:
Periodic Review of RG 1.102, Revision 1 (ML21068A405)

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DISTRIBUTION:

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ADAMS ACCESSION NO: Package: ML21068A403**Memo: ML21068A404, Periodic Review of RG: 1.102: ML21068A405**

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