



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

June 24, 2016

MEMORANDUM TO: Brian E. Thomas, Director
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Michael E. Mayfield, Director /RA/
Division of Engineering, Infrastructure, and Advanced Reactors
Office of New Reactors

SUBJECT: RESULTS OF PERIODIC REVIEW OF REGULATORY
GUIDES 1.31, 1.34, 1.43, 1.44, and 1.50

This memorandum documents the US Nuclear Regulatory Commission's (NRC) periodic review of five regulatory guides (RGs) listed as follows:

- RG 1.31, Revision 4, "Control of Ferrite Content in Stainless Steel Weld Metal." RG 1.31 describes a method for controlling ferrite content in stainless steel weld metal. RG 1.31 was revised in October 2013.
- RG 1.34, Revision 1, "Control of Electroslag Weld Properties." RG 1.34 describes methods for implementing requirements about the control of weld properties when fabricating electroslag welds for nuclear components made of ferritic or austenitic materials for light-water-cooled reactors. RG 1.34 was revised in March 2011.
- RG 1.43, Revision 1, "Control of Stainless Steel Weld Cladding of Low Alloy Steel Components." RG 1.43 describes methods for the selection and control of welding processes used for cladding ferritic steel components with austenitic stainless steel to restrict practices that could result in underclad cracking for light-water-cooled reactors. RG 1.43 was revised in March 2011.
- RG 1.44, Revision 1, "Control of the Processing and Use of Stainless Steel." RG 1.44 describes methods for implementing requirements about control of the application and processing of stainless steel to avoid severe sensitization that could lead to stress-corrosion cracking for light-water-cooled reactors. RG 1.44 was revised in March 2011.

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- RG 1.50, Revision 1, "Control of Preheat Temperature for Welding of Low Alloy Steel." RG 1.50 describes a method for implementing regulatory requirements related to the control of welding for low-alloy steel components during initial fabrication for light-water-cooled reactors. RG 1.50 was revised in March 2011.

As discussed in Management Directive 6.6, "Regulatory Guides," the NRC staff reviews RGs approximately every 5 years to ensure that the RGs continue to provide useful guidance. Documentation of the NRC staff review is enclosed.

Based on the results of the periodic review, the staff concludes that no changes to RGs: 1.31, Revision 4; 1.34, Revision 1; 1.43, Revision 1; 1.44, Revision 1 and 1.50 Revision 1 are warranted. The staff did not identify any technical or regulatory issues in the review.

Enclosure:
As stated

- RG 1.50, Revision 1, "Control of Preheat Temperature for Welding of Low Alloy Steel." RG 1.50 describes a method for implementing regulatory requirements related to the control of welding for low-alloy steel components during initial fabrication for light-water-cooled reactors. RG 1.50 was revised in March 2011.

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Enclosure:
As stated

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