[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[NRC-2012-0231]

Control of Ferrite Content in Stainless Steel Weld Metal

AGENCY: Nuclear Regulatory Commission.

ACTION: Regulatory guide; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing a revision to Regulatory Guide (RG) 1.31, "Control of Ferrite Content in Stainless Steel Weld Metal." This guide (Revision 4) describes a method that the NRC staff considers acceptable for controlling ferrite content in stainless steel weld metal. It updates the guide to remove references to outdated standards and to remove an appendix that has been incorporated into relevant specifications.

ADDRESSES: Please refer to Docket ID **NRC-2012-0231** when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this action by the following methods:

- **Federal Rulemaking Web site:** Go to http://www.regulations.gov and search for Docket ID **NRC-2012-0231**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual(s) listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may access publicly available documents online in the NRC Library at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. Revision 4 of Regulatory Guide 1.31 is available in ADAMS under Accession No. ML13211A485. The regulatory analysis may be found in ADAMS under Accession No. ML13211A490.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

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SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is issuing a revision to an existing guide in the NRC's "Regulatory Guide" series. This series was developed to describe and make available to the public information

such as methods that are acceptable to the NRC staff for implementing specific parts of the agency's regulations, techniques that the staff uses in evaluating specific problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses. Revision 4 of RG 1.31 was issued with a temporary identification as Draft Regulatory Guide DG-1279 and it describes a method that the staff of the NRC considers acceptable for complying with the Commission's regulations concerning establishing and implementing a procedure for the control of ferrite content in stainless steel weld metal. This guide provides methods that the NRC's staff considers acceptable to implement certain requirements in part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Domestic Licensing of Production and Utilization Facilities." Since microfissures in austenitic welds may have an adverse effect on the integrity of components, the control of weld deposits to ensure the presence of delta ferrite in these welds is advisable.

Reason for Revision

To achieve control of ferrite content in stainless steel welds, the original version of this guide, Safety Guide 31, "Control of Stainless Steel Welding," issued August 1972, provided guidance to test production welds. This guidance was retained in Revision 1 of the Safety Guide, which was issued June 1973 as Regulatory Guide 1.31, "Control of Ferrite Content in Stainless Steel Weld Metal." Revision 2 (issued May 1977) and Revision 3 (issued April 1978) to this guide were based on recommendations of an NRC/industry study group. Revision 2 of this guide replaced the guidance for testing production welds in Revision 1 with guidance for process control through testing weld test pads. These changes considerably reduced the testing effort needed to control delta ferrite in welds.

This revision (Revision 4) references the latest consensus standards. It supplements the American Society of Mechanical Engineers (ASME) Code requirements to ensure control of

delta ferrite in welds in austenitic stainless steel core support structures, reactor internals, and Class 1, 2, and 3 components. Also, the appendix of the previous version has been removed and incorporated into the relevant specifications that are referenced in the guide.

II. Additional Information

The NRC published DG-1279 in the *Federal Register* on October 3, 2012 (77 FR 60479), for a 60-day public comment period. The public comment period closed on December 2, 2012. Public comments on DG-1279 and the NRC staff's responses to the public comments are available in ADAMS under Accession No. ML13211A483.

III. Congressional Review Act

This regulatory guide is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

IV. Backfitting and Issue Finality

Issuance of this final regulatory guide does not constitute backfitting as defined in 10 CFR 50.109 (the Backfit Rule) and is not otherwise inconsistent with the issue finality provisions in 10 CFR part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." Revision 4 of this regulatory guide provides guidance on methods for meeting NRC's regulatory requirements concerning establishing and implementing a procedure for the control of ferrite

content in stainless steel weld metal. Licensees may voluntarily use the guidance in this document to demonstrate compliance with the underlying NRC regulations. The NRC staff does not expect any existing licensee to use or commit to using the guidance in this regulatory guide, unless the licensee seeks a voluntary change to its licensing basis.

Further information on the staff's use of Revision 4 of this regulatory guide is contained in the regulatory guide under section D. Implementation.

Dated at Rockville, Maryland, this 3rd day of October , 2013.

For the Nuclear Regulatory Commission.

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