

The objective of 10 CFR 50.46(b)(2) and (b)(3) and paragraph I.A.5 of appendix K to 10 CFR part 50 is to ensure that cladding oxidation and hydrogen generation are appropriately limited during a loss-of-coolant accident and conservatively accounted for in the ECCS evaluation model. Appendix K of 10 CFR 50 requires that the Baker-Just equation be used in the ECCS evaluation model to determine the rate of energy release, cladding oxidation, and hydrogen generation. Westinghouse has shown in Addendum 1–A to WCAP–12610–P–A that the Baker-Just model is conservative in all post-loss-of-coolant accident scenarios with respect to the use of the Optimized ZIRLO™ advanced alloy as a fuel cladding material.

#### B. The Exemption Is Authorized by Law

The NRC has the authority under 10 CFR 50.12 to grant exemptions from the requirements of 10 CFR part 50 upon showing proper justification. The fuel that will be irradiated at Watts Bar, Units 1 and 2, contains cladding material that does not conform to the cladding material that is explicitly defined in 10 CFR 50.46 and implicitly defined in appendix K to 10 CFR part 50. However, the criteria of these sections will continue to be satisfied for the operation of the Watts Bar, Units 1 and 2, core containing Optimized ZIRLO™ fuel cladding.

#### C. The Exemption Presents No Undue Risk to Public Health and Safety

The standards for exemption are also satisfied since the exemption will not present an undue risk to public health and safety. The NRC-approved Westinghouse topical report discussed above has demonstrated that predicted chemical, thermal, and mechanical characteristics of the Optimized ZIRLO™ alloy cladding are bounded by those approved for ZIRLO™ under anticipated operational occurrences and postulated accidents. Reload cores are required to be operated in accordance with the operating limits specified in the Technical Specifications and COLR. Thus, the granting of this exemption request will not pose an undue risk to public health and safety.

#### D. The Exemption Is Consistent With the Common Defense and Security

The exemption request is to allow the licensee to use an improved fuel rod cladding material. The licensee has documented compliance with the conditions and limitations of the NRC safety evaluation regarding the use of Optimized ZIRLO™ fuel rod cladding at Beaver Valley Power Station, Units 1

and 2, and has committed to ensuring compliance for future reloads in the current application for Watts Bar, Units 1 and 2. Use of Optimized ZIRLO™ fuel rod cladding in the Watts Bar, Units 1 and 2, cores will not affect plant operations and is consistent with common defense and security.

#### E. Environmental Considerations

A review has determined that the proposed amendments would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR part 20, or would change an inspection or surveillance requirement. However, the proposed amendments do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendments meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendments.

#### IV. Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Therefore, the Commission hereby grants TVA an exemption from the requirements of 10 CFR 50.46 and appendix K to 10 CFR part 50 to allow the use of Optimized ZIRLO™ fuel rod cladding material at Watts Bar, Units 1 and 2. As stated in this notice, this exemption relates solely to the cladding material specified in these regulations.

Dated at Rockville, Maryland, this 25th day of July 2019.

For the Nuclear Regulatory Commission.

**Blake D. Welling,**

*Deputy Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.*

[FR Doc. 2019–16147 Filed 7–29–19; 8:45 am]

**BILLING CODE 7590–01–P**

## NUCLEAR REGULATORY COMMISSION

[NRC–2016–0233]

### Pressurized Water Reactor Control Rod Ejection and Boiling Water Reactor Control Rod Drop Accidents

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice of reissuance of draft regulatory guide; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is reissuing for public comment draft regulatory guide (DG), DG–1327, “Pressurized Water Reactor Control Rod Ejection and Boiling Water Reactor Control Rod Drop Accidents.” This DG proposes new guidance for analyzing accidents such as a control rod ejection for pressurized water reactors and a control rod drop for boiling-water reactors. It defines fuel cladding failure thresholds for ductile failure, brittle failure, and pellet-clad mechanical interaction and provides radionuclide release fractions for use in assessing radiological consequences. It also describes analytical limits and guidance for demonstrating compliance with regulations governing reactivity limits.

**DATES:** Submit comments by October 28, 2019. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date. Although a time limit is given, comments and suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

**ADDRESSES:** You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- *Federal Rulemaking Website:* Go to <https://www.regulations.gov/> and search for Docket ID NRC–2016–0233. Address questions about docket IDs in *Regulations.gov* to Jennifer Borges; telephone: 301–287–9127; email: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *Mail comments to:* Office of Administration, Mail Stop: TWFN–7–A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments,

see “Obtaining Information and Submitting Comments” in the **SUPPLEMENTARY INFORMATION** section of this document.

**FOR FURTHER INFORMATION CONTACT:** Paul Clifford, Office of Nuclear Reactor Regulation, telephone: 301-415-4043, email: [Paul.Clifford@nrc.gov](mailto:Paul.Clifford@nrc.gov) and Edward O'Donnell, Office of Nuclear Regulatory Research; telephone: 301-415-3317; email: [Edward.ODonnell@nrc.gov](mailto:Edward.ODonnell@nrc.gov). Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

**SUPPLEMENTARY INFORMATION:**

**I. Obtaining Information and Submitting Comments**

*A. Obtaining Information*

Please refer to Docket ID NRC-2016-0233 when contacting the NRC about the availability of information regarding this action. You may obtain publicly-available information related to this action, by any of the following methods:

- *Federal Rulemaking Website:* Go to <https://www.regulations.gov> and search for Docket ID NRC-2016-0233.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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 email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The DG is electronically available in ADAMS under Accession No. ML16124A200.
- *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.

*B. Submitting Comments*

Please include Docket ID NRC-2016-0233 in your comment submission. The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment submissions at <https://www.regulations.gov> as well as enters the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that

they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

**II. Additional Information**

The NRC is reissuing for public comment a DG in the NRC's “Regulatory Guide” series. This series was developed to describe and make available to the public information regarding methods that are acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques that the staff uses in evaluating specific issues or postulated events, and data that the staff needs in its review of applications for permits and licenses.

The DG, entitled “Pressurized Water Reactor Control Rod Ejection and Boiling Water Reactor Control Rod Drop Accidents,” is a proposed new guide temporarily identified by its task number, DG-1327.

DG-1327 describes one acceptable method for demonstrating compliance with appendix A of part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), General Design Criteria (GDC) 28, “Reactivity Limit,” with respect to a control rod ejection (CRE) for pressurized-water reactors (PWRs) and a control rod drop (CRD) for boiling-water reactors (BWRs). DG-1327 proposes new guidance for analyzing these reactivity-initiated accidents. It defines fuel cladding failure thresholds for ductile failure, brittle failure, and pellet-clad mechanical interaction and provides radionuclide release reactions for use in assessing radiological consequences. It also describes analytical limits and guidance for demonstrating compliance with regulations governing reactivity limits.

The draft guide incorporates new empirical data from in-pile, prompt power pulse test programs and analyses from several international publications on fuel rod performance under reactivity-initiated accident conditions to provide guidance on acceptable analytical methods, assumptions, and limits for evaluating a CRE accident for a PWR. The draft guide expands the existing guidance for CRE accidents in Regulatory Guide (RG) 1.77, “Assumptions Used for Evaluation a Control Rod Ejection Accident for Pressurized Water Reactors.” However, the NRC intends to maintain RG 1.77.

The NRC released the draft guide for public comment on November 21, 2016

(81 FR 83288) with a 60 day comment period that expired on February 21, 2017. A public meeting was held at NRC Headquarters on January 25, 2017, while the guide was open for public comment. During the meeting, the NRC made a commitment to hold a second public meeting to discuss the staff's proposed resolution of key comments prior to finalization of the guide. Following the January 25, 2017 public meeting, the NRC extended the comment period to April 21, 2017 (February 1, 2017; 82 FR 8958) to allow more time for comment. A second public meeting was held at NRC Headquarters on June 5, 2018, to discuss resolution of the public comments. To facilitate discussion at the meeting, drafts of the guide (ADAMS Accession No. ML18138A459) and a table showing the NRC staff's initial resolution of the public comments (ADAMS Accession No. ML18138A458) were made publicly available prior to the meeting.

As a result of the written public comments and discussions at the public meetings, the NRC made several changes to the draft guide, and the NRC's final response to the public comments can be found in ADAMS under Accession No. ML18302A107. Among the changes were: (1) Division of the analytical methods in the staff regulatory guidance to differentiate between PWRs and BWRs, (2) the graphs for cladding failure thresholds were extended based on more recent testing, (3) addition of an appendix to define acronyms and abbreviations used in the guide, (4) addition of an appendix that provides guidance on steady-state and transient gap fission product inventories for releases following a CRE or CRD accident, and (5) addition of an appendix that has alloy-specific cladding hydrogen uptake models.

**III. Backfitting and Issue Finality**

DG-1327 describes one acceptable method for demonstrating compliance with GDC 28 in 10 CFR part 50, appendix A, with respect to a control rod ejection for PWRs and a control rod drop for BWRs. It addresses fuel cladding failure thresholds for ductile failure, brittle failure, and pellet-clad mechanical interaction, provides radionuclide release fractions for use in assessing radiological consequences, and describes analytical limits and guidance for demonstrating compliance with GDC 28 governing reactivity limits.

This draft regulatory guide, if finalized, would not constitute backfitting as defined in 10 CFR 50.109, “Backfitting” (the Backfit Rule) and would not otherwise be inconsistent with the issue finality provisions in 10

CFR part 52, “Licenses, Certifications and Approvals for Nuclear Power Plants.” Existing licensees and applicants of final design certification rules will not be required to comply with the positions set forth in this draft regulatory guide. Further information on the staff’s use of the draft regulatory guide, if finalized, is contained in the draft regulatory guide under Section D., “Implementation.”

Applicants and potential applicants are not, with certain exceptions, protected by either the Backfit Rule or any issue finality provisions under 10 CFR part 52. Neither the Backfit Rule nor the issue finality provisions under 10 CFR part 52—with certain exclusions discussed below—were intended to apply to every NRC action which substantially changes the expectations of current and future applicants. Therefore, the positions in any final draft regulatory guide, if imposed on applicants, would not represent backfitting (except as discussed below).

The exceptions to the general principle are applicable whenever a 10 CFR part 50 operating license applicant references a construction permit or a combined license applicant references a 10 CFR part 52 license (*i.e.*, an early site permit or a manufacturing license) or regulatory approval (*i.e.*, a design certification rule or design approval). The staff does not, at this time, intend to impose the positions represented in the draft regulatory guide in a manner that is inconsistent with the Backfit Rule or any issue finality provisions in these 10 CFR part 52 licenses and regulatory approvals. If, in the future, the staff seeks to impose a position in this regulatory guide in a manner that constitutes backfitting under the Backfit Rule or does not provide issue finality as described in the applicable issue finality provision, then the staff will address the backfitting provisions in the Backfit Rule or criteria for avoiding issue finality as described in the applicable issue finality provision.

Dated at Rockville, Maryland, this 24th day of July 2019.

For the Nuclear Regulatory Commission.

**Thomas H. Boyce,**

Chief, Regulatory Guidance and Generic Issues Branch, Division of Engineering, Office of Nuclear Regulatory Research.

[FR Doc. 2019-16067 Filed 7-29-19; 8:45 am]

**BILLING CODE 7590-01-P**

## NUCLEAR REGULATORY COMMISSION

[NRC-2019-0153]

### Standard Format and Content of License Termination Plans for Nuclear Power Reactors

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Regulatory guide; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 2 to Regulatory Guide (RG) 1.179, “Standard Format and Content of License Termination Plans for Nuclear Power Reactors.” This RG (Revision 2) provides general procedures acceptable to the NRC staff for the preparation of license termination plans (LTPs) for nuclear power reactors. This RG also describes the acceptable format and content of LTPs for nuclear power reactor licensees to terminate their licenses and release their sites. Revision 2 does not contain substantive changes in the NRC staff’s regulatory guidance since Revision 1 was issued. It provides updated references, minor corrections, and other editorial changes.

**DATES:** Revision 2 to RG 1.179 is available on July 30, 2019.

**ADDRESSES:** Please refer to Docket ID NRC-2019-0153 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document, using the following methods:

- *Federal Rulemaking Website:* Go to <https://www.regulations.gov/> and search for Docket ID NRC-2019-0153. Address questions about NRC docket IDs in *Regulations.gov* to Jennifer Borges Roman; telephone: 301-287-9127; email: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *NRC’s Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Document collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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 email to [pdr.resource@nrc.gov](mailto: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 2 to

Regulatory Guide 1.179 may be found in ADAMS under Accession No. ML19128A067.

- *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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**FOR FURTHER INFORMATION CONTACT:** Steve Giebel, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-5526, email: [Steve.Giebel@nrc.gov](mailto:Steve.Giebel@nrc.gov), and Harriet Karagiannis, Office of Nuclear Regulatory Research, telephone: 301-415-2493, email: [Harriet.Karagiannis@nrc.gov](mailto:Harriet.Karagiannis@nrc.gov). Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

#### SUPPLEMENTARY INFORMATION:

##### I. Discussion

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 regarding methods that are acceptable to the NRC staff for implementing specific parts of the agency’s regulations, techniques that the NRC staff uses in evaluating specific issues or postulated events, and data that the NRC staff needs in its review of applications for permits and licenses.

The NRC typically seeks public comment on a draft version of a regulatory guide by announcing its availability for comment in the **Federal Register**. However, the NRC may directly issue a final regulatory guide without a draft version or public comment period if the changes to the regulatory guide are non-substantive.

The NRC is issuing Revision 2 of RG 1.179 directly as a final RG because the changes are non-substantive. Revision 2 of RG 1.179 incorporates updated references, minor corrections, and other editorial changes to be aligned with NUREG-1700, “Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans,” Revision 2, issued April 2018. The changes in Revision 2 of the RG are administrative in nature. The changes are intended to improve clarity and do not substantially alter the NRC staff’s regulatory guidance for the acceptable format and content of LTPs for nuclear power reactor licensees.

##### II. Backfitting and Issue Finality

Issuance of this regulatory guide does not constitute backfitting as defined in