

NUCLEAR REGULATORY COMMISSION

[NRC-2019-0253]

Final Revision to Branch Technical Position 7-19

Guidance for Evaluation of Defense in Depth and Diversity to Address Common-Cause Failure due to Latent Design Defects in Digital Safety Systems

AGENCY: Nuclear Regulatory Commission

ACTION: Standard review plan-final section revision; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing a final revision to Branch Technical Position (BTP) 7-19, "Guidance for Evaluation of Defense in Depth and Diversity to Address Common-Cause Failure due to Latent Design Defects in Digital Safety Systems" of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition."

DATES: The update to this BTP takes effect on **January 29, 2021**.

ADDRESSES: Please refer to Docket ID **NRC-2019-0253** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov/> and search for Docket ID **NRC-2019-0253**. Address questions about Docket IDs in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail: Jennifer.Borges@nrc.gov. For technical questions, contact the individual 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, 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 (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via e-mail at pdr.resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

The NRC posts its issued staff guidance on the NRC’s public Web site at <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/>.

FOR FURTHER INFORMATION CONTACT: Mark D. Notich, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3053, e-mail: Mark.Notich@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On January 14, 2020 (85 FR 2152), the NRC published for public comment a proposed revision of BTP 7-19, “Guidance for Evaluation of Potential Common Cause Failure Due to Latent Software Defects in Digital Instrumentation and Control Systems” of NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition.” The public comment period closed on March 16, 2020. Eight public comments were received regarding draft Revision 8 of BTP 7-19. The final Revision 8 to NUREG-0800, BTP 7-19, “Guidance for Evaluation of

Defense in Depth and Diversity to Address Common-Cause Failure due to Latent Design Defects in Digital Safety Systems” is available in ADAMS under Accession No. ML20339A647. A summary of the public comments and the NRC staff’s disposition of the comments are available in ADAMS Accession No. ML20126G430. The redline/strikeout comparison between the draft version of BTP 7-19 and this final version, including revisions made in response to public comments and to improve organization, is shown in ML20364A212.

II. Backfitting, Forward Fitting, and Issue Finality

Chapter 7 of the SRP provides guidance to the staff for reviewing instrumentation and controls information provided in applications for licensing actions. Part of Chapter 7, BTP 7-19 provides guidance for the evaluation of diversity and defense-in-depth in digital computer-based instrumentation and control systems.

Issuance of this BTP revision does not constitute backfitting as defined in section 50.109 of title 10 of the *Code of Federal Regulations* (10 CFR), (the backfit rule), and as described in Management Directive (MD) 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests;” constitute forward fitting as that term is defined and described in MD 8.4; or affect issue finality of any approval issued under 10 CFR part 52, “Licenses, Certificates, and Approvals for Nuclear Power Plants.” The NRC’s position is based upon the following considerations.

First, the SRP provides guidance to the NRC staff on how to review an application for NRC regulatory approval in the form of licensing. Changes in guidance intended for use by only the staff are not matters that constitute backfitting as that term is defined in 10 CFR 50.109(a)(1); constitute forward fitting as that term is defined and

described in MD 8.4; or affect issue finality of any approval issued under 10 CFR part 52, "Licenses, Certificates, and Approvals for Nuclear Power Plants."

Second, the NRC staff does not intend to use the guidance in this BTP SRP section to support NRC staff actions in a manner that would constitute backfitting or forward fitting. If, in the future, the NRC seeks to impose a position in this SRP section in a manner that constitutes backfitting or forward fitting or affects the issue finality for a 10 CFR part 52 approval, then the NRC will address the backfitting provision in 10 CFR 50.109, the forward fitting provision of MD 8.4, or the applicable issue finality provision in 10 CFR part 52, respectively.

III. Congressional Review Act

This action is not a rule as defined in the Congressional Review Act (5 U.S.C. §§ 801-808). OMB's clearance of BTP 7-19 as a non-major rule is shown in ADAMS Accession No. ML21025A022

Dated: January 26, 2021.

For the Nuclear Regulatory Commission.

/RA/

Dennis C. Morey, Chief,
Licensing Project Branch,
Division of Operating Reactors,
Office of Nuclear Reactor Regulation.