

NUCLEAR REGULATORY COMMISSION

[NRC-2012-0232]

**Revision Probabilistic Risk Assessment and Severe Accident
Evaluation for New Reactors**

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 the following section in Chapter 19 of NUREG-0800, "Standard Review Plan (SRP) for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Section 19.0, "Probabilistic Risk Assessment and Severe Accident Evaluation for New Reactors."

DATES: The effective date of this Standard Review Plan update is **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*].**

ADDRESSES: Please refer to Docket ID **NRC-2012-0232** when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0232**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; 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 obtain publicly-available documents online in the ADAMS Public Documents collection 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 (if it available in ADAMS) is provided the first time that a document is referenced. The final revision for the SRP, Section 19.0, Revision 3, "Probabilistic Risk Assessment and Severe Accident Evaluation for New Reactors," is available in ADAMS under Accession No. ML15089A068. A redline strikeout comparing the proposed revision to the final revision can be found in ADAMS under Accession No. ML15089A115. The responses to public comments can be found in ADAMS under Accession No. ML15086A472.

- **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.

- The NRC posts its issued staff guidance on the NRC's external Web page: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/>.

FOR FURTHER INFORMATION CONTACT: Mark Notich, telephone: 301-415-3053, e-mail: Mark.Notich@nrc.gov or Nishka Devaser, telephone: 301-415-5196, e-mail: Nishka.Devaser@nrc.gov, both are staff of the Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Background.

On December 8, 2014 (79 FR 72709), the NRC published for public comment a proposed revision to this section of the SRP. The staff made changes to the proposed revision after consideration of comments received. A summary of the comments and the staff's disposition of the comments are available in a separate document, "Response to Public Comments on Draft SRP Section 19.0" (ADAMS Accession No. ML15086A472).

The changes to this SRP section reflect current staff review methods and practices based on lessons learned from NRC reviews of design certification (DC) and combined license (COL) applications completed since the last revision of this chapter. Changes include:

- (1) incorporation of guidance previously published in Interim Staff Guidance (ISG) DC/COL-ISG-003 (ADAMS Accession No. ML081430087) concerning the review of probabilistic risk assessment (PRA) information and severe accident assessments submitted to support DC and COL applications,
- (2) incorporation of guidance for DC and COL applicants previously published in ISG DC/COL-ISG-020 (ADAMS Accession No. ML100491233) concerning review of information from PRA-based seismic margin analyses submitted in support of DC and COL applications,
- (3) incorporation of guidance previously published in ISG Digital Instrumentation and Controls (DI&C)/COL-ISG-003 (ADAMS Accession No. ML080570048) concerning review of DI&C system PRAs, including treatment of common cause failure (CCFs) in PRAs and uncertainty analysis associated with new reactor digital systems,
- (4) incorporation of additional procedures for review of PRA information and severe accident assessments developed during NRC reviews of DC and COL applications completed after Revision 2 of SRP Section 19.0 was issued,
- (5) additional proposed acceptance criteria and review procedures for

the staff's review of an applicant's assessment of risk from accidents that could affect multiple modules in facilities with small modular integral pressurized water reactors (iPWRs), (6) additional review procedures for the staff's review of the results of the PRA for non-power modes of operation, and (7) several editorial changes to ensure that there is no confusion between text in this SRP section and text in the ASME/ANS PRA Standard currently endorsed by the NRC and referenced in this SRP section. The ISG DC/COL-ISG-003 and ISG DI&C/COL-ISG-003 have now been superseded by SRP 19.0, Revision 3 and should no longer be used. The ISG DC/COL-ISG-020 contains guidance for COL holders which has not been superseded by SRP 19.0, Revision 3 and should still be used by COL holders.

II. Backfitting and Issue Finality.

Issuance of this final SRP does not constitute backfitting as defined in 10 CFR 50.109 (the Backfit Rule) or otherwise be inconsistent with the issue finality provisions in 10 CFR part 52. The NRC's position is based upon the following considerations:

1. *The SRP positions, does not constitute backfitting, inasmuch as the SRP is internal guidance to NRC staff.*

The SRP provides internal guidance to the NRC staff on how to review an application for NRC regulatory approval in the form of licensing. Changes in internal staff guidance are not matters for which either nuclear power plant applicants or licensees are protected under either the Backfit Rule or the issue finality provisions of 10 CFR part 52.

2. *The NRC staff has no intention to impose the SRP positions on existing licensees either now or in the future.*

The NRC staff does not intend to impose or apply the positions described in the draft SRP to existing licenses and regulatory approvals. Hence, the issuance of a final SRP - even if considered guidance within the purview of the issue finality provisions in 10 CFR part 52 –need not be evaluated as if it were a backfit or inconsistent with issue finality provisions. If, in the future, the NRC staff seeks to impose a position in the SRP on holders of already issued licenses in a manner that does not provide issue finality as described in the applicable issue finality provision, then the staff must make the showing as set forth in the Backfit Rule or address the criteria for avoiding issue finality as described in the applicable issue finality provision.

3. Backfitting and issue finality do not—with limited exceptions not applicable here—protect current or future applicants.

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, were intended to apply to every NRC action that substantially changes the expectations of current and future applicants. The exceptions to the general principle are applicable whenever an applicant references a 10 CFR part 52 license (e.g., an early site permit) and/or NRC regulatory approval (e.g., a design certification rule) with specified issue finality provisions.

The exceptions to the general principle are applicable whenever an applicant references a 10 CFR part 52 license (e.g., an early site permit) and/or NRC regulatory approval (e.g., a design certification rule) with specified issue finality provisions. The NRC staff does not, at this time, intend to impose the positions represented in the draft SRP in a manner that is inconsistent with any issue finality provisions. If, in the future, the staff seeks to impose a position in the draft SRP in a manner that does not provide issue finality as described in the

applicable issue finality provision, then the staff must address the criteria for avoiding issue finality as described in the applicable issue finality provision.

III. Congressional Review Act.

In accordance with the Congressional Review Act, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs of the Office of Management and Budget.

Dated at Rockville, Maryland, this 21st day of January, 2016.

For the Nuclear Regulatory Commission.

/RA/

Tanya Smith, Chief
New Reactor Rulemaking and Guidance Branch
Division of Advanced Reactors and Rulemaking
Office of New Reactors

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NUCLEAR REGULATORY COMMISSION

[NRC-2012-0237]

**SUBJECT: PROBABILISTIC RISK ASSESSMENT AND SEVERE ACCIDENT
 EVALUATION FOR NEW REACTORS**

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