

## U.S. NUCLEAR REGULATORY COMMISSION

### Regulatory Guide: Issuance, Availability

The U.S. Nuclear Regulatory Commission (NRC) has issued a new guide in the agency's Regulatory Guide Series. This series has been developed to describe and make available to the public such information as 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 problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses.

Regulatory Guide 1.203, "Transient and Accident Analysis Methods," provides guidance for NRC licensees and applicants to use in developing and assessing evaluation models that may be used to analyze transient and accident behavior that is within the design basis of a nuclear power plant. Evaluation models that the NRC has previously approved will remain acceptable and need not be revised to conform with the guidance given in this regulatory guide.

Chapter 15 of the NRC's "Standard Review Plan (SRP) for the Review of Safety Analysis Reports for Nuclear Power Plants" (NUREG-0800) and the "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants" (Regulatory Guide 1.70) describe a subset of the transient and accident events that must be considered in the safety analyses required by Title 10, Part 50, of the Code of Federal Regulations (10 CFR Part 50), "Domestic Licensing of Production and Utilization Facilities," Section 50.34, "Contents of Applications; Technical Information" (10 CFR 50.34). In particular, 10 CFR 50.34 specifies the following requirements regarding applications for construction permits and/or licenses to operate a facility:

- (1) Safety analysis reports must analyze the design and performance of structures, systems, and components, and their adequacy for the prevention of accidents and mitigation of the consequences of accidents.
- (2) Analysis and evaluation of emergency core cooling system (ECCS) cooling performance following postulated loss-of-coolant accidents (LOCAs) must be performed in accordance with the requirements of 10 CFR 50.46.
- (3) The technical specifications for the facility must be based on the safety analysis and prepared in accordance with the requirements of 10 CFR 50.36.

An additional benefit is that evaluation models that are developed using the guidelines provided in Regulatory Guide 1.203 will provide a more reliable framework for risk-informed regulation and a basis for estimating the uncertainty in understanding transient and accident behavior.

In addition, the NRC is issuing Section 15.0.2 of the SRP, which covers the same subject material as Regulatory Guide 1.203, and is intended to complement the guide. Specifically, Section 15.0.2 provides guidance to NRC reviewers of transient and accident analysis methods, while Regulatory Guide 1.203 provides practices and principles for the benefit of method developers. Chapter 15 of the SRP recommends using approved evaluation models or codes for the analysis of most identified events. The SRP also suggests that evaluation model reviews should be initiated whenever an approved model does not exist for a specified plant event. If the applicant or licensee proposes to use an unapproved model, an evaluation model review should be initiated.

The NRC previously solicited public comment on this guide by publishing a *Federal Register* notice (65 FR 77934) concerning Draft Regulatory Guide DG-1096 on December 13, 2000, followed by a *Federal Register* notice (68 FR 4524) concerning Draft Regulatory Guide DG-1120 on January 29, 2003. Following the closure of the latest public comment period on March 24, 2003, the staff considered all stakeholder comments in the course of preparing the new Regulatory Guide 1.203.

The NRC staff encourages and welcomes comments and suggestions in connection with improvements to published regulatory guides, as well as items for inclusion in regulatory guides that are currently being developed. You may submit comments by any of the following methods.

Mail comments to: Rules and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Hand-deliver comments to: Rules and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. on Federal workdays.

Fax comments to: Rules and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, at (301) 415-5144.

Requests for technical information about Regulatory Guide 1.203 may be directed to Shawn O. Marshall at (301) 415-5861 or via email to [SOM@nrc.gov](mailto:SOM@nrc.gov).

Regulatory guides are available for inspection or downloading through the NRC's public Web site in the Regulatory Guides document collection of the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/doc-collections>. Electronic copies of Regulatory Guide 1.203 and SRP Section 15.0.2 are also available in the NRC's Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>, under Accession Nos. ML053500170 and ML053550265, respectively.

In addition, regulatory guides are available for inspection at the NRC's Public Document Room (PDR), which is located at 11555 Rockville Pike, Rockville, Maryland; the PDR's mailing address is USNRC PDR, Washington, DC 20555-0001. The PDR can also be reached by telephone at (301) 415-4737 or (800) 397-4205, by fax at (301) 415-3548, and by email to [PDR@nrc.gov](mailto:PDR@nrc.gov). Requests for single copies of draft or final guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future draft guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Reproduction and Distribution Services Section; by email to [DISTRIBUTION@nrc.gov](mailto:DISTRIBUTION@nrc.gov); or by fax to (301) 415-2289. Telephone requests cannot be accommodated.

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(5 U.S.C. 552(a))

Dated at Rockville, Maryland, this 29<sup>th</sup> day of December, 2005.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION,

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James T. Wiggins, Deputy Director  
Office of Nuclear Regulatory Research