

NUCLEAR REGULATORY COMMISSION

Notice of Issuance of Regulatory Guide

[NRC-2010-0216]

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of Issuance and Availability of Regulatory Guide 1.152, Revision 3, "Criteria for Use of Computers in Safety Systems of Nuclear Power Plants."

FOR FURTHER INFORMATION CONTACT: Mark P. Orr, Regulatory Guide

Development Branch, Division of Engineering, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone: 301-251-7495 or e-mail: Mark.Orr@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) is issuing a revision to an existing guide in the agency'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 3 of Regulatory Guide 1.152, "Criteria for Use of Computers in Safety Systems of Nuclear Power Plants," was issued with a temporary identification as Draft Regulatory Guide, DG-1249, for public comments on June 22, 2010 (75 FR 35508). The public comment period closed on August 20, 2010. All comments that were received were considered and, where appropriate, the final guide was revised to address the comments. Editorial changes and clarifications were made to Regulatory Guide 1.152 as a result of the public comments. These

include minor changes to the discussion section to improve consistency with other NRC regulations and guidance, clarification of the regulatory criteria to more clearly indicate that licensees are responsible for demonstrating establishment of a secure development and operational environment, and clarification of regulatory criteria to precisely state the expectations of actions taken to protect developmental activities. This guide describes a method that the staff of the NRC considers acceptable to implement Title 10, of the *Code of Federal Regulations*, Part 50, “Domestic Licensing of Production and Utilization Facilities” (10 CFR Part 50); 10 CFR 50.55a(h); General Design Criterion (GDC) 21, “Protection System Reliability and Testability,” of Appendix A, “General Design Criteria for Nuclear Power Plants,” to 10 CFR Part 50; and Criterion III, “Design Control,” of Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to 10 CFR Part 50 with regard to the use of computers in safety systems of nuclear power plants. This guide applies to all types of commercial nuclear power plants. Regulatory Guide 1.152 was not uniquely developed for non-power reactors; therefore, the applicability of this guide for those facilities should be determined on a case-by-case basis.

This regulatory guide describes a method that the NRC staff deems acceptable for complying with the Commission’s regulations for promoting high functional reliability, design quality, and a secure development and operational environment for the use of digital computers in the safety systems of nuclear power plants. In this context, the term “computer” identifies a system that includes computer hardware, software, firmware, and interfaces.

II. Further Information

Electronic copies of Regulatory Guide 1.152, Revision 3 are available through the NRC’s public Web site under “Regulatory Guides” at <http://www.nrc.gov/reading-rm/doc-collections/>. The regulatory analysis may be found through the NRC’s Agencywide Documents Access and Management System (ADAMS) under Accession No. ML101320317.

In addition, regulatory guides are available for inspection at the NRC's Public Document Room (PDR) located at Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852-2738. 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 800-397-4209, by fax at 301-415-3548, and by e-mail to pdr.resources@nrc.gov.

Regulatory guides are not copyrighted, and NRC approval is not required to reproduce them.

Dated at Rockville, Maryland, this 5th day of July, 2011.

For the Nuclear Regulatory Commission

/RA/

Harriet Karagiannis, Acting Chief,
Regulatory Guide Development Branch,
Division of Engineering,
Office of Nuclear Regulatory Research