

REGULATORY ANALYSIS

Regulatory Guide 8.40

Methods for Measuring Effective Dose Equivalent from External Exposure

This draft regulatory guide consolidates guidance previously published by the U.S. Nuclear Regulatory Commission (NRC) in Regulatory Information Summary (RIS) 2002-06, "Evaluating Occupational Dose for Individuals Exposed to NRC-Licensed Material and Medical X-Rays,"¹ issued April 2002; RIS 2003-04, "Use of the Effective Dose Equivalent in Place of the Deep Dose Equivalent in Dose Assessments,"² issued February 2003; RIS 2004-01, "Method for Estimating Effective Dose Equivalent from External Radiation Sources Using Two Dosimeters,"³ issued February 2004, RIS 2009-09, and "Use of Multiple Dosimetry and Compartment Factors in Determining Effective Dose Equivalent From External Radiation Exposures,"⁴ July 13, 2009. The NRC staff did not prepare a regulatory analysis for this revised guide because it simply catalogs, in a single document, dosimetry methods previously approved by the NRC in RIS 2002-06, RIS 2003-04, RIS 2004-01, and RIS 2009-09 without changing the NRC's regulatory position.

The regulatory analysis prepared for 10 CFR Part 20, "Standards for Protection Against Radiation," (NUREG/BR-0184) promulgated May 21, 1991, also provides the regulatory basis for this guide and examines the costs and benefits of the rule as implemented by the guide. That regulatory analysis examined the costs and benefits of the rule as will be implemented by this guide. A copy of the regulatory analysis is available for inspection and may be copied (for a fee) at the NRC Public Document Room, located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

¹ RIS 2002-06, "Evaluating Occupational Dose for Individuals Exposed to NRC-Licensed Material and Medical X-Rays," U.S. Nuclear Regulatory Commission, Washington, DC, April 16, 2002. (ADAMS Accession No. ML021080436)

² RIS 2003-04, "Use of the Effective Dose Equivalent in Place of the Deep Dose Equivalent in Dose Assessments," U.S. Nuclear Regulatory Commission, Washington, DC, February 13, 2003. (ADAMS Accession No. ML030370122)

³ RIS 2004-01, "Method for Estimating Effective Dose Equivalent from External Radiation Sources Using Two Dosimeters," U.S. Nuclear Regulatory Commission, Washington, DC, February 17, 2004. (ADAMS Accession No. ML040420042)

⁴ RIS 2009-09, "Use of Multiple Dosimetry and Compartment Factors in Determining Effective Dose Equivalent From External Radiation Exposures," July 13, 2009. (ADAMS Accession No. ML082320040)