

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
OFFICE OF FEDERAL AND STATE MATERIALS AND  
ENVIRONMENTAL MANAGEMENT PROGRAMS  
OFFICE OF NEW REACTORS  
WASHINGTON, DC 20555-0001

November 13, 2009

NRC INFORMATION NOTICE 2009-27: REVISED INTERNATIONAL NUCLEAR AND  
RADIOLOGICAL EVENT SCALE USER'S MANUAL

**ADDRESSEES**

All holders of a license, certificate, permit, approval, or registration issued under Title 10 of the *Code of Federal Regulations* (10 CFR). Specifically, this includes:

All holders of an operating license or construction permit for a power reactor, test reactor or research reactor issued under 10 CFR Part 50.

All holders of or applicants for an early site permit, standard design certification, standard design approval, manufacturing license, or combined license issued under 10 CFR Part 52.

All holders of a materials license, certificate, approval, or registration issued under 10 CFR Parts 30, 31 through 36, 39, 40, 61, 70, 71, 72, and 76.

All Agreement State Radiation Control Program Directors and State Liaison Officers.

**PURPOSE**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to inform addressees that the 63 Member States of the International Atomic Energy Agency (IAEA) have approved an updated version of the International Nuclear and Radiological Event Scale (INES) User's Manual. The NRC will use this updated guidance to submit information to the IAEA on certain reactor, fuel cycle facility, and materials events. This IN does not contain NRC requirements. It is for information purposes only, and no specific action or written response is required.

**BACKGROUND**

In 1990, international experts convened by the IAEA and the Organization for Economic Cooperation and Development, Nuclear Energy Agency developed the INES with the aim of communicating the safety significance of events at nuclear facilities. As described in NRC Generic Letter 1992-09, "Limited Participation by NRC in the IAEA International Nuclear Event Scale," dated December 31, 1992 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML031070459), the NRC initiated limited use of the system in 1992 to

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rate reactor events that resulted in the declaration of an “Alert” or higher emergency classification. After further review, and as described in NRC Regulatory Issue Summary 2002-01, “Changes to NRC Participation in the International Nuclear Event Scale,” dated January 14, 2002 (ADAMS Accession No. ML013200502), the NRC expanded its participation to include events associated with various other sources of radiation. NRC participation now covers a wide spectrum of practices, including industrial uses such as radiography, radiation sources in hospitals, activities at nuclear facilities, and the transport of radioactive material. By putting events from all these practices into a proper perspective, use of INES can facilitate a common understanding between the technical community, the media, and the public.

## **DISCUSSION**

Events are classified on the INES scale at seven levels: Levels 4-7 are termed “accidents” and Levels 1-3 “incidents.” Events without safety significance are classified as “Below Scale/Level 0.” An explanation of the classification levels can be found at <http://www.iaea.org/Publications/Factsheets/English/ines.pdf>. The NRC transmits information to the INES website only for those events rated at a Level 2 or higher unless an event rating is specifically requested by another IAEA Member State. Since beginning full participation in 2002, this threshold has resulted in less than one reactor event per year submitted to IAEA, and on average about 5 materials events per year.

In June 2008, 63 Member States of the IAEA approved a revised edition of the INES User’s Manual (2008 Edition), to aid in the rating of events, which has just been published by the IAEA (see <http://www-pub.iaea.org/MTCD/publications/PubDetails.asp?pubId=8120>). The updated manual includes the information from the 2001 INES User’s Manual, which focused primarily on reactors and fuel cycle facilities, and incorporates further guidance for the rating of materials events, including those involving the transport, storage, and use of radioactive material and radiation sources. The INES User’s Manual (2008 Edition) is now being used by the NRC and the Agreement States to assist in determining the rating of events and to transmit those that are INES Level 2 or higher. The NRC will continue its current practice of notifying the IAEA within 2 business days when an event at a U.S. facility has a provisional INES rating of Level 2 or higher. Notifications are immediately posted for public viewing at the IAEA Web site <http://www-news.iaea.org/news/>. The changes incorporated into the INES User’s Manual (2008 Edition) should be transparent to licensees.

## CONTACT

This information notice requires no specific action or written response. Please direct any questions about this matter to the technical contacts listed below.

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Note: NRC generic communications may be found on the NRC public Web site,  
<http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

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