

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

January 10, 2007

**NRC REGULATORY ISSUE SUMMARY 2007-01:
CLARIFICATION OF NRC GUIDANCE FOR MAINTAINING A
STANDARD EMERGENCY ACTION LEVEL SCHEME**

ADDRESSEES

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to clarify the regulatory requirement that licensees have a standard emergency classification and action level scheme in use, to ensure classification of events in a logical manner. This RIS requires no action or written response by addressees.

BACKGROUND

The NRC's regulations of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.47(b)(4) and Section IV.B of Appendix E to 10 CFR Part 50 require licensees to have in use a standard emergency classification and action level scheme.

During an inspection at Point Beach nuclear power plant in August 2003 (see Agencywide Documents Access and Management System, Accession No. ML040360104), the NRC determined that the licensee failed to maintain a standard Emergency Action Level (EAL) scheme. Guidance on standard EAL schemes can be found in Regulatory Guide (RG) 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors." The licensee had an EAL scheme based on NUREG-0654, Appendix 1; however, the licensee had made EAL changes incorporating portions of the NUMARC/NESP-007 EAL scheme methodology into its NRC-approved NUREG-0654, Appendix 1-based EAL scheme, resulting in a decrease in the effectiveness of the emergency plan without prior Commission approval. Further, the NRC staff has determined that other licensees similarly may not have maintained a consistent EAL scheme due to incorporating portions of the NUMARC/NESP-007 EAL scheme methodology into their NRC-approved NUREG-0654, Appendix 1-based EAL schemes.

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DISCUSSION

RG 1.101, Revision 4, identifies three guidance documents containing methods acceptable to the NRC staff for complying with the requirements for maintaining a standard EAL scheme:

- NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, November 1980 (NUREG-0654).
- NUMARC/NESP-007, "Methodology for Development of Emergency Action Levels," Revision 2, January 1992 (NUMARC).
- NEI 99-01, "Methodology for Development of Emergency Action Levels," Revision 4, January 2003 (NEI 99-01).

Revision 3 of RG 1.101 stated that "Licensees may use either NUREG-0654/FEMA-REP-1 or NUMARC/NESP-007 in developing their EAL scheme but may not use portions of both methodologies." RIS 2003-18, "Use of NEI 99-01, 'Methodology for Development of Emergency Action Levels,' Revision 4, Dated January 2003," states, in part, "Licensees with hybrid EAL schemes ...should submit changes for prior approval..." NRC staff recognized in its EPPOS No. 1 ("Emergency Preparedness Position on Acceptable Deviations from Appendix 1 of NUREG-0654 Based Upon the Staff's Regulatory Analysis of NUMARC/NESP-007, 'Methodology for Development of Emergency Action Levels'"), that licensees who continue to use EALs based upon NUREG-0654 could benefit from the technical basis for EALs provided in the NUMARC methodology.

However, staff also recognized that classification schemes must remain internally consistent, and that licensees must ensure that the EALs making up the scheme be integrated so as to cover the spectrum of conditions that may warrant classification in a logical manner. Otherwise, EAL changes could result in an emergency plan decrease in effectiveness. 10 CFR 50.54(q) states that EAL changes resulting in a decrease in effectiveness must be approved by the Commission before implementation.

Some licensees may have interpreted and used the EPPOS No. 1 guidance improperly. Licensees may have created a hybrid EAL scheme by changing their NUREG-0654 EAL scheme using the NUMARC technical basis without first receiving NRC approval. Alternatively, licensees may have used portions of both NUREG-0654 and NUMARC methodologies in their EAL schemes, resulting in a decrease in effectiveness without receiving prior Commission approval. RIS 2005-02, "Clarifying the Process For Making Emergency Plan Changes," states that:

For the purposes of determining whether a change to a licensee's emergency plan constitutes a decrease in effectiveness, the licensee may use the last emergency plan reviewed and approved by the NRC.

RIS 2005-02 further states:

For the decrease in effectiveness determination, the change or changes should be evaluated against the capability to perform the functions and the associated time requirement of performing the function. The evaluation should document whether the capability or timeliness to perform a function is lost and/or degraded.

In the Point Beach inspection, numerous NUREG-0654, Appendix 1 initiating conditions (used as the basis for NUREG-0654 EALs) were missing; with those functions lost, the EAL format was significantly changed such that numerous NRC-approved NUREG-0654 EALs were missing. Staff concluded that the licensee had made EAL changes resulting in a decrease in effectiveness without prior Commission approval.

10 CFR 50.54(q) states, in part, that “The licensee shall submit, as specified in 10 CFR 50.4, a report of each proposed change for approval,” if the proposed change decreases the effectiveness of the approved emergency plan. Licensees making these types of EAL changes should not assume that changes reviewed by regional inspection staff equate to NRC-approved changes. This type of inspection review is not documented in a Safety Evaluation Report and does not constitute NRC approval of licensee changes; therefore, these EAL changes are subject to future inspection. NRC inspections are selective examinations of specific issues and an NRC inspection is not the process for approval of changes to the licensing basis. NRC approval of EAL changes which created a hybrid EAL scheme is accomplished by a formal Safety Evaluation Report.

10 CFR 50.54(q) also states that “Proposed changes that decrease the effectiveness of the approved emergency plans may not be implemented without application to and approval by the Commission.” Therefore, changes which incorporate elements of the NUMARC methodology into NUREG-0654 EAL schemes, resulting in a decrease in effectiveness, may not be implemented without Commission approval. If a licensee identifies a decrease in effectiveness as a result of this change mechanism, the NRC expects that licensee to immediately take action to achieve compliance with regulations.

For those licensees who self-identify a decrease in effectiveness, which the staff determines to be non-willful, resulting from EAL changes described in this RIS, and take immediate corrective actions to restore compliance, the NRC will consider enforcement discretion. Specific guidance for this enforcement discretion is currently being generated via an enforcement guidance memorandum. This enforcement guidance will be located on the NRC’s web site at www.nrc.gov; select **What We Do, Enforcement, Enforcement Guidance, Enforcement Manual**, then **Appendix A: Temporary Enforcement Guidance**.

SUMMARY OF ISSUE

The NRC staff determined that some licensees with NUREG-0654 EAL schemes may have failed to maintain a standard EAL scheme. Specifically, these licensees have incorporated portions of the NUMARC EAL methodology into their NRC-approved NUREG-0654 EAL schemes, which may have resulted in a decrease in effectiveness of the emergency plan that was not approved by the Commission before implementation, as required.

BACKFIT DISCUSSION

This RIS requires no action or written response. Any action by addresses to implement changes to their emergency plans or procedures in accordance with the guidance in this RIS is strictly voluntary and, therefore, is not a backfit under 10 CFR 50.109. Consequently, the NRC staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because the RIS is informational and pertains to a staff position that does not depart from current regulatory requirements and practices.

CONGRESSIONAL REVIEW ACT

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801-808) and, therefore, is not subject to the Act.

PAPERWORK REDUCTION ACT STATEMENT

This Regulatory Issue Summary contains information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget (OMB), approval number 3150-0011.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

CONTACT

Please direct any questions about this matter to the technical contacts listed below.

/RA by Theodore Quay for/

Michael J. Case, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: F. J. Laughlin, NSIR/DPR
301-415-1113
E-mail: jxl1@nrc.gov

R. E. Kahler, NSIR/DPR
301-415-2992
E-mail: rek@nrc.gov

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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Technical Contacts:	F. J. Laughlin, NSIR/DPR 301-415-1113 E-mail: jxl1@nrc.gov	R. E. Kahler, NSIR/DPR 301-415-2992 E-mail: rek@nrc.gov
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