

October 25, 2005

Mr. Paul D. Hinnenkamp
Vice President - Operations
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SUBJECT: RIVER BEND STATION, UNIT 1 - ISSUANCE OF APPROVAL OF THE
UPGRADED EMERGENCY ACTION LEVELS BASED ON REVISION 4 TO
NUCLEAR ENERGY INSTITUTE (NEI) 99-01 (TAC NO. MC1617)

Dear Mr. Hinnenkamp:

By letter dated December 19, 2003, as superseded by letter dated November 12, 2004, and supplemented by letters dated May 20, June 3, July 21, and September 26, 2005, Entergy Operations Inc. requested the U. S. Nuclear Regulatory Commission (NRC) staff review and approval of the Upgraded Emergency Action Levels (EALs), as required by Title 10 of the *Code of Federal Regulations*, Part 50 (10 CFR Part 50), Section IV.B, Appendix E.

These new EALs were written using the methodology outlined in NEI 99-01, "Methodology for Development of Emergency Action Levels" (Revision 4, January 2003). NEI 99-01 has been endorsed by the NRC staff in Regulatory Guide 1.101, Revision 4, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated July 2003 and in NRC Regulatory Issue Summary 2003-18, "Use of NEI 99-01," dated October 8, 2003.

The NRC staff has reviewed the new EALs, as documented in the enclosed Safety Evaluation, and finds that the new EALs will continue to satisfy the criteria of Appendix E to 10 CFR Part 50 and is, therefore, acceptable.

Sincerely,

/RA/

David Terao, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO PROPOSED EMERGENCY ACTION LEVELS BASED ON
REVISION 4 TO NUCLEAR ENERGY INSTITUTE 99-01, "METHODOLOGY FOR
DEVELOPMENT OF EMERGENCY ACTION LEVELS"
ENTERGY OPERATIONS, INC.
RIVER BEND STATION, UNIT 1
DOCKET NO. 50-458

1.0 INTRODUCTION

By application dated December 19, 2003 (Reference 1), as superseded by letter dated November 12, 2004 (Reference 2), and supplemented by letters dated May 20 (Reference 3), June 3 (Reference 4), July 21 (Reference 5), and September 26 (Reference 6), 2005, Entergy Operations Inc. (Entergy, the licensee), requested changes to the emergency action levels (EALs) for River Bend Station, Unit 1 (RBS). The supplemental letters provided responses to U. S. Nuclear Regulatory Commission (NRC) staff's requests for additional information and, thus, clarified the application and did not expand the scope of the original application.

The proposed changes revise the RBS EALs using the guidance provided in Nuclear Energy Institute (NEI) document, NEI 99-01, Revision 4, "Methodology for Development of Emergency Action Levels," which was endorsed by the NRC staff in Regulatory Guide (RG) 1.101, Revision 4, "Emergency Planning and Preparedness for Nuclear Power Reactors." The licensee's existing EALs, which are being revised, are based on the methodology described in Appendix 1 to NUREG-0654/Federal Emergency Management Agency (FEMA)-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (November 1980), and the NRC's Order for Interim Safeguards and Security Compensatory Measures, dated February 25, 2002.

2.0 REGULATORY EVALUATION

Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50), Section 50.47, "Emergency plans," states that no operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that the state of onsite and offsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. In addition, 10 CFR 50.47 establishes standards that must be met by the onsite and offsite emergency response plans for the NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Further,

10 CFR 50.47(b)(4) stipulates that emergency plans include a standard emergency classification and action level scheme.

The regulation at 10 CFR Part 50, Appendix E, Section IV.B, "Assessment Actions," states that emergency plans are to include EALs, which are to be used as criteria for determining the need for notification and participation of local and State governmental authorities, and which are to be used for determining when and what type of protective measures should be considered, both onsite and offsite, to protect health and safety. EALs are to be based on in-plant conditions and instrumentation, and onsite and offsite monitoring. Additionally, 10 CFR Part 50, Appendix E, Section IV.B requires that initial EALs shall be discussed and agreed on by the applicant, State, and local governmental authorities and be approved by NRC, and reviewed annually thereafter with State and local governmental authorities. In addition, Section IV.B of Appendix E to 10 CFR Part 50 states that an EAL revision must be approved by the NRC before implementation if it involves:

- (1) the changing from one EAL scheme to another EAL scheme (e.g., a change from an EAL scheme based on NUREG-0654/FEMA-REP-1 to a scheme based on Nuclear Utilities Management Council (NUMARC)/NESP-007 or NEI 99-01;
- (2) the licensee is proposing an alternate method for complying with the regulations; or
- (3) the EAL revision has been evaluated by licensee as constituting a decrease in effectiveness of the emergency plan.

Revision 4 to RG 1.101, issued in July 2003, endorses the guidance contained in NEI 99-01 (Revision 4, January 2003), as acceptable to the NRC staff as an alternative method to those described in the following guidance for developing EALs required in Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4):

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

Regulatory Issue Summary (RIS) 2003-18, "Use of NEI 99-01, "Methodology for Development of Emergency Action Levels," Revision 4, dated January 2003," dated October 8, 2003, provides guidance for developing or changing a standard emergency classification and action level scheme. In addition, this RIS provides recommendations to assist licensees, consistent with Section IV.B to Appendix E of 10 CFR Part 50, in determining whether to seek prior NRC approval of deviations from the new guidance.

Supplement 1 to RIS 2003-18, dated July 13, 2004, was subsequently issued to clarify various technical positions regarding the revision of EALs.

3.0 TECHNICAL EVALUATION

Since the proposed revision to the RBS EALs involves a scheme conversion from Appendix 1 of NUREG-0654/FEMA-REP-1 to NEI 99-01 (Revision 4), the proposed changes were submitted to the NRC for approval prior to implementation by licensee, as required under Section IV.B of Appendix E to 10 CFR Part 50.

This evaluation is based on revisions to initiating conditions (ICs) and EAL threshold values provided in References 2, 3, 4, 5, and 6. The staff's review did not consider ICs and EAL threshold values proposed in Reference 1, since Reference 2 superseded Reference 1. Reference 2 contained the following attachments, which were reviewed as part of the staff's evaluation of proposed changes:

- (1) Attachment 1, Response to NRC RAI Questions
- (2) Attachment 2, Proposed Emergency Plan Pages – Changes Incorporated
- (3) Attachment 3, Proposed EALs – To Be Incorporated in Procedure
- (4) Attachment 4, Proposed EAL Basis – To Be Incorporated in Procedure
- (5) Attachment 5, NEI 99-01, Revision 4 to Plant Specific Correlations, Differences, Deviations, and Justifications
- (6) Attachment 6, Cross Reference Matrix From NEI EAL Number to Entergy EAL Number (i.e., NEI number, previous Entergy number, new Entergy number)
- (7) Attachment 7, Commitments

An updated EAL Basis document, including EAL Matrix, ICs, and associated EAL threshold values, is provided in Attachment 1 of Reference 2. In addition, proposed deviations or differences from the guidance in NEI 99-01, Revision 4, other than minor differences, such as station-specific terminology, system and component names, or formatting, were identified in Attachment 2 to Reference 6, which provided a specific evaluation for each. These documents reflect the changes made to EAL Matrix, ICs, EAL threshold values, and Basis discussion in the responses to the NRC staff's RAIs.

ICs entitled, "Events Related to ISFSI [Independent Spent Fuel Storage Installation]," and listed under Category E in NEI 99-01, Revision 4, were not considered during this technical evaluation. As stated in Reference 5, RBS has not yet implemented an ISFSI, and intends to implement at a future date the ISFSI-related EALs in accordance with 10 CFR 50.54(q) consistent with the final Holtec FSAR [Final Safety Analysis Report], Certification-of-Compliance, RBS 72.212 report, and the guidance in RIS 2003-18.

ICs entitled, "Defueled Station Malfunctions," and listed under Category D in NEI 99-01, Revision 4, are not applicable, since RBS has a current operating license and, therefore, were not considered during this technical evaluation.

3.1 Approval by State and Local Authorities

Section IV.B of 10 CFR Part 50, Appendix E states that initial EALs shall be discussed and agreed on by the applicant and State and local governmental authorities, be approved by the NRC, and reviewed annually thereafter with State and local governmental authorities.

In Attachment 1 of Reference 2, the licensee provided a copy of a letter from the State of Louisiana, Department of Environmental Quality (LDEQ) dated October 29, 2003, signifying that LDEQ had no objection to adopting the NEI 99-01, Revision 4, methodology at RBS as a replacement of the existing NUREG-0654 methodology. In addition, the attachment also provided documentation on the training of the following offsite agencies on the major changes to the EALs being implemented under NEI 99-01, Revision 4:

- (1) Louisiana Office of Homeland Security and Emergency Management, dated October 28, 2003
- (2) Mississippi Emergency Management Agency, dated November 7, 2003
- (3) Point Coupee Parish, dated October 21, 2003
- (4) West Baton Rouge Parish, dated October 28, 2003
- (5) East Baton Rouge Parish, dated November 5, 2003
- (6) West Feliciana Parish, dated November 14, 2003
- (7) East Feliciana Parish, dated November 17, 2003

In Reference 2, the licensee also states, "Prior to implementation, changes will be discussed and agreed upon with state authorities as required."

3.2 List of Commitments

The licensee has made the following commitments:

<u>Reference</u>	<u>Commitment</u>	<u>Scheduled Completion</u>
Attachment 7 of Reference 2	Response to Questions 28.b and 30; EAL implementing procedure EIP-2-001, "Classification of Emergencies," Section 3 – Definitions will contain NEI 99-01 definitions when EALs are approved and procedure is issued.	Upon implementation
Attachment 7 of Reference 2	Response to Question 32; EAL implementing procedure, EIP-2-001, "Classification of Emergencies," Section 3 – Definitions, will contain the RBS Security Plan definition for sabotage, add Protected Area, and NEI 99-01 definition for Vital Area and hostile force will be included when EALs are approved and procedure is issued.	Upon implementation
Attachment 7 of Reference 2	Response to Question 39; Significant transient and NEI 99-01, Section 5.4 definitions will be incorporated in the revised RBS EAL implementing procedure, EIP-2-001, "Classification of Emergencies," Section 3.0.	Upon implementation
Attachment 2 of Reference 3	Information contained in this submittal will be included in the Emergency Plan or basis as applicable.	Upon implementation

The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the regulatory commitments are best provided by

the licensee's administrative processes, including its commitment management program.

3.3 Evaluation

Based on the review of the information provided in References 2, 3, 4, 5, and 6, the NRC staff finds that the proposed changes to ICs, EAL threshold values, and Basis document are consistent with the guidance in NEI 99-01, Revision 4, or provide an acceptable alternative. Hence, the proposed changes to the RBS EALs, as reflected in Attachment 1 of Reference 6 are acceptable.

Changes to the RBS security EALs under Category H (Hazards and Other Conditions Affecting Plant Safety), to address the guidance provided in Attachment 2 to NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005, were not evaluated as part of this review. The licensee intends to implement these changes to its security EALs under 10 CFR 50.54(q), which is acceptable under the guidance provided in Bulletin 2005-02.

4.0 CONCLUSION

The NRC staff has performed a review of the proposed changes to the RBS EALs and Basis document, as submitted by References 2, 3, 4, 5, and 6, using the guidance in NEI 99-01, Revision 4. The NRC staff finds that the proposed RBS EALs provided in Attachment 1 of Reference 6 are consistent with the guidance in NEI 99-01, Revision 4, or provide an acceptable alternative as discussed in Section 3.0 above.

The NRC staff also finds that the proposed EAL changes meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50, Section IV.B. Therefore, the NRC staff, based on the above discussion, concludes that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the approval of the proposed emergency plan changes will not be inimical to the common defense and security or to the health and safety of the public.

5.0 REFERENCES

1. Correspondence dated December 19, 2003, from J. W. Leavines, Entergy Operations, Inc., to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Proposed Upgraded Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-027. ADAMS Accession No. ML033630742.
2. Correspondence dated November 12, 2004, from D. N. Lorring, Entergy Operations, Inc. to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Response to Request for Additional Information for Proposed Upgraded Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-27. ADAMS Accession No. ML043230229.
3. Correspondence dated May 20, 2005, from D. N. Lorring, Entergy Operations, Inc., to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Response to Request for Additional Information for Proposed Upgraded

Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-27. ADAMS Accession No. ML051470167

4. Correspondence dated June 3, 2005, from D. N. Lorfing, Entergy Operations, Inc., to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Response to Request for Additional Information for Proposed Upgraded Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-27. ADAMS Accession No. ML051580200.
5. Correspondence dated July 21, 2005, from D. N. Lorfing, Entergy Operations, Inc., to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Response to Request for Additional Information for Proposed Upgraded Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-27. ADAMS Accession No. ML052080097.
6. Correspondence dated September 26, 2005, from D. N. Lorfing, Entergy Operations, Inc., to Document Control Desk, U.S. Nuclear Regulatory Commission. Subject: River Bend Station - Response to Request for Additional Information for Proposed Upgraded Emergency Action Levels (EALs) Using NEI 99-01 Revision 4 Methodology - LAR 2003-27. ADAMS Accession No. ML052770030.

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Date: October 25, 2005

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