

March 21, 2006

Mr. F. G. Burford  
Acting Director  
Nuclear Safety & Licensing  
Entergy Operations, Inc.  
1340 Echelon Parkway  
Jackson, MS 39213-8298

SUBJECT: RIVER BEND STATION, UNIT 1 - REQUEST IST-2006-1, USE OF  
SUBSEQUENT AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
OPERATION AND MAINTENANCE CODE EDITION AND ADDENDA FOR  
CONDITION MONITORING CHECK VALVES (TAC NO. MD0170)

Dear Mr. Burford:

By letter dated January 31, 2006, as supplemented by letter dated March 10, 2006, you requested approval, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(f)(4)(iv), to use Paragraph ISTC-5222 of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2001 Edition through the 2003 Addenda at River Bend Station (RBS).

The NRC staff has reviewed the subject request, IST-2006-1, and concludes that you have adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(f)(4)(iv). Therefore, the NRC staff approves your proposed alternative to use Subsection ISTC of the 2001 Edition with 2003 Addenda of ASME OM Code for the conduct of check valve testing at RBS until December 1, 2007, the end of current 120-month interval for inservice testing program. The NRC staff's related Safety Evaluation is enclosed.

Sincerely,

**/RA/**

David Terao, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosure: As stated

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
REQUEST NUMBER IST-2006-1 TO USE SUBSEQUENT EDITIONS AND ADDENDA OF  
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
OPERATIONS AND MAINTENANCE CODE  
FOR CONDITION MONITORING CHECK VALVES  
ENTERGY OPERATIONS, INC.  
RIVER BEND STATION  
DOCKET NO. 50-458

1.0 INTRODUCTION

By letter dated January 31, 2006 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML060390344), as supplemented by letter dated March 10, 2006 (ADAMS Accession Number ML060790380), Entergy Operations, Inc. (Entergy or the licensee), pursuant to Title 10 of the Code of Federal Regulations (10 CFR) Paragraph 50.55a(f)(4)(iv), submitted request number IST-2006-1 to the Nuclear Regulatory Commission (NRC) for use of Paragraph ISTC-5222 of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2001 Edition through the 2003 Addenda for condition monitoring check valves at River Bend Station (RBS). Entergy submitted the request in accordance with NRC Regulatory Issue Summary 2004-12, "Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI" and the guidance provided in NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants."

2.0 REGULATORY EVALUATION

In the *Federal Register* (69 FR 58813) dated October 1, 2004, the Commission amended Title 10 of the *Code of Federal Regulations*, Section 50.55a, to incorporate by reference the 2001 Edition through the 2003 Addenda of the ASME OM Code. Subsection ISTC provides the requirements for inservice testing (IST) of pumps and valves. The Code of record for RBS is the ASME/American National Standards Institute (ANSI) Standard OM-10a, 1988 Edition.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Description - Request No. IST-2006-1

##### 3.1.1 ASME Code Components Affected (As Submitted)

All check valves within the Inservice Testing (IST) program.

##### 3.1.2 Applicable Code Edition and Addenda (As Submitted)

Currently, River Bend Station (RBS) is committed to ASME/ANSI OM-10a, 1988 Edition. The next 120-month interval starts December 2007.

##### 3.1.3 Proposed Subsequent Code Edition and Addenda (or Portion) (As Submitted)

Pursuant to 10 CFR 50.55a(f)(4)(iv), Entergy Operations, Inc. (Entergy) requests permission to use Subsection ISTC of the 2001 Edition with 2003 Addenda of ASME Operation and Maintenance (OM) Code for the conduct of check valve testing at RBS.

##### 3.1.4 Related Requirements (As Submitted)

There are no related requirements. The NRC approved the use of Appendix II condition monitoring program requirements specified in the 2001 Edition and 2003 Addenda with no limitations or modifications as documented in 10 CFR 50.55a(b)(3)(iv). In *Federal Register* 69 FR 58814, the NRC stated in part:

“The modification in (b)(3)(iv) does not apply to the 2003 Addenda of the ASME OM Code because the earlier Code provisions on which this regulation was based were revised in the 2003 Addenda of the ASME OM Code to address the underlying issues which led to the NRC to impose the modification. The check valve monitoring program requirements in Appendix II of the 2003 Addenda of the ASME OM Code are equivalent to the check valve monitoring program requirements in § 50.55a(b)(3)(iv).”

Unlike earlier editions and addenda of the OM Code, the 2003 Addenda of the 2001 Edition contains the modifications imposed by the NRC for those earlier editions and addenda. Included in these requirements is bi-directional testing of check valves. By adopting this edition and addenda of the OM Code, Entergy will comply with these requirements.

##### 3.1.5 Duration of Proposed Request (As Submitted)

Entergy will begin implementing the Appendix II condition monitoring program upon approval of this request. Entergy has identified 580 Class 1, 2, and 3 check valves that are currently required to be uni-directionally tested in accordance with the IST Plan. Of these, 339 are scheduled to be tested during outages. Entergy will begin incorporating these 339 check valves into the Appendix II condition monitoring program upon approval

of this request. By completion of the spring 2006 refueling outage (RF13), these valves will meet the Appendix II or ISTC requirements for bi-directional testing.

The remaining 241 valves that are uni-directionally tested in accordance with the IST Plan are currently tested on-line. Entergy plans to test these valves during appropriate maintenance (division or system) outages. Provided in the table below is the current schedule for these outages. The scheduled dates are subject to change based on plant configuration and operational requirements.

Scheduled Start Date	Maintenance Outage
12/4/2006	Division III
1/29/2007	Division II
3/12/2007	Division I
5/28/2007	Reactor Core Isolation Cooling (RCIC) system

The remaining 241 valves will be scheduled for testing such that adequate time is available to perform the required tests. By June 9, 2007, the 241 valves will meet the Appendix II or ISTC requirements for bi-directional testing except as follows:

Entergy will make a good-faith effort to meet the requirements for bi-directional testing by June 9, 2007. Efforts to develop test methods for these remaining valves will not begin until after the spring 2006 refueling outage. If during test development Entergy determines that bi-directional testing is only possible during a refueling outage, Entergy will perform such testing during the fall 2007 refueling outage.

For those Class 1, 2, and 3 check valves currently required to be bi-directionally tested in accordance with the IST Plan, Entergy will continue to bi-directionally test these valves. Entergy will apply the requirements of Subsection ISTC to these valves by December 1, 2007.

### 3.2 Evaluation

By letter dated January 31, 2006, as supplemented by letter dated March 10, 2006, the licensee requested NRC approval to use portions of a more recent edition and addenda of the ASME Code for OM Code for RBS pursuant to 10 CFR 50.55a(f)(4)(iv). Specifically, the licensee requested approval to apply the requirements of the 2001 Edition through 2003 Addenda of the ASME OM Code, Subsection ISTC, Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants, for the conduct of check valve testing for all check valves subject to IST requirements, for the remainder of the second 120-month IST program interval. Implementation of the 2001 Edition through 2003 Addenda check valve testing requirements will be phased in for all check valves at RBS as described in the licensee's submission. Full implementation will be completed by December 1, 2007.

The current Code of Record for RBS is the 1988 Edition of the ASME Boiler and Pressure Vessel Code, Section XI, with no addenda which references the 1988 ASME/ANSI OM-10 Standard for inservice testing of valves. The regulations in 10 CFR 50.55a(f)(4)(iv) state that IST of pumps and valves may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in 10 CFR 50.55a(b), subject to the limitations and modifications listed in 10 CFR 50.55a(b), and subject to NRC approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met. The 2001 Edition through 2003 Addenda of the ASME OM Code was incorporated by reference into 10 CFR 50.55a(b) on October 1, 2004 (69 FR 58804), and became effective on November 1, 2004, subject to certain limitations and modifications.

The NRC staff finds that there are no limitations or modifications listed in 10 CFR 50.55a(b) for meeting Subsection ISTC IST requirements for check valves. Further, the NRC staff has identified no related requirements in the specified later ASME OM Code edition and addenda that would also need to be met to implement Subsection ISTC for the conduct of check valve testing. Therefore, pursuant to 10 CFR 50.55a(f)(4)(iv), the use of Subsection ISTC for the IST of check valves, is approved for RBS until December 1, 2007, the end of the current 120-month IST program interval.

#### 4.0 REGULATORY COMMITMENTS (As Submitted)

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
1. Entergy has identified 580 Class 1, 2, and 3 check valves that are currently required to be uni-directionally tested in accordance with the IST Plan. Of these, 339 are scheduled to be tested during outages. Entergy will begin incorporating these 339 check valves into the Appendix II condition monitoring program upon approval of this request. By completion of the spring 2006 refueling outage (RF13), these valves will meet the Appendix II or ISTC requirements for bi-directional testing.	X		End of the spring 2006 refueling outage (RF13)

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
<p>2. The remaining 241 valves will be scheduled for testing such that adequate time is available to perform the required tests. By June 9, 2007, the 241 valves will meet the Appendix II or ISTC requirements for bi-directional testing except as follows:</p> <p>Entergy will make a good-faith effort to meet the requirements for bi-directional testing by June 9, 2007. Efforts to develop test methods for these remaining valves will not begin until after the spring 2006 refueling outage.</p>	X		6/9/2007
<p>3. If during test development (See item 2 above) Entergy determines that bi-directional testing is only possible during a refueling outage, Entergy will perform such testing during the fall 2007 refueling outage.</p>	X		End of the fall 2007 refueling outage
<p>4. For those Class 1, 2, and 3 check valves currently required to be bi-directionally tested in accordance with the IST Plan, Entergy will continue to bi-directionally test these valves.</p>		X	
<p>5. Entergy will apply the requirements of Subsection ISTC to these valves (see item 4, above) by December 1, 2007.</p>	X		12/1/2007

The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the above regulatory commitments are provided by the licensee's administrative processes, including its commitment management program. Should the licensee choose to incorporate a regulatory commitment into the emergency plan, Updated Final Safety Analysis Report, or other documents with established regulatory controls, the associated regulations would define the appropriate change-control and reporting requirements. The NRC staff has determined that the commitments do not warrant the creation of regulatory requirements, which would require prior NRC approval of subsequent changes. The NRC staff has agreed that Nuclear Energy Institute 99-04, Revision 0, "Guidelines for

Managing NRC Commitment Changes," provides reasonable guidance for the control of regulatory commitments made to the NRC staff (see Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000). The commitments should be controlled in accordance with industry guidance or comparable criteria employed by a specific licensee. The NRC staff may choose to verify the implementation and maintenance of these commitments in a future inspection or audit.

## 5.0 CONCLUSION

Pursuant to the requirements set forth in 10 CFR 50.55a(f)(4)(iv), the staff has reviewed the licensee's request, as supplemented, and determined that the pertinent regulatory provisions were adequately addressed. Therefore, the NRC staff finds the licensee's request acceptable and approves the use of Subsection ISTC of the ASME OM Code 2001 Edition through the 2003 Addenda for the IST of check valves, for RBS until December 1, 2007, the end of the current 120-month interval for inservice testing.

Principal Contributors: B. Vaidya

Date: March 21, 2006



River Bend Station

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May 2005