



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 30, 2010

Vice President, Operations
Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775

SUBJECT: RIVER BEND STATION, UNIT 1 - AUDIT OF THE TECHNICAL ADEQUACY OF
PROBABILISTIC RISK ASSESSMENT (TAC NO. ME1507)

Dear Sir or Madam:

By letter dated June 16, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML091740306), as supplemented by letter dated August 11, 2009 (ADAMS Accession No. ML092290106), Entergy Operations, Inc. (Entergy, the licensee), pursuant to paragraph 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations*, submitted a request to implement a risk-informed inservice inspection (RI-ISI) program at River Bend Station, Unit 1 (RBS). The proposed program is based, in part, on the guidance from the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Code Case N-716, "Alternative Piping Classification and Examination Requirements Based Upon Risk-Informed and Safety-Based Insights." In the submittal, Entergy stated that it had evaluated its probabilistic risk assessment (PRA) models and concluded that the PRA was suitable for use in this RI-ISI application. On December 8, 2009, an audit of the licensee's resolution of comments from the previous reviews of its PRA was held at Entergy Headquarters at 1340 Echelon Parkway, Jackson, Mississippi.

A copy of the U.S. Nuclear Regulatory Commission (NRC) staff Audit Report is provided in Enclosure 1. In addition, the staff has determined additional information is needed to complete this review. The request for additional information is provided in the Enclosure 2 of this letter. If you have any questions regarding the Audit Report, please contact me at (301) 415-1445.

Sincerely,

A handwritten signature in cursive script that reads "Alan Wang".

Alan B. Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosures:

1. Audit Report
2. Request for Additional Information

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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION
AUDIT OF THE TECHNICAL ADEQUACY OF PROBABILISTIC RISK ASSESSMENT

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

By letter dated June 16, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML091740306), as supplemented by letter dated August 11, 2009 (ADAMS Accession No. ML092290106), Entergy Operations, Inc. (Entergy, the licensee), pursuant to paragraph 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR), submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to implement a risk-informed inservice inspection (RI-ISI) program at River Bend Station, Unit 1 (RBS). The proposed program is based, in part, on the guidance from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Code Case N-716, "Alternative Piping Classification and Examination Requirements Based Upon Risk-Informed and Safety-Based Insights (Code Case N-716)."

In the submittal, Entergy stated that it had completed the peer reviews of its probabilistic risk assessment (PRA) consistent with the guidance in RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," and concluded that the PRA was suitable for use in the RI-ISI application. The audit was conducted to help the NRC staff gain a better understanding on how Entergy reached this conclusion. As result of the audit, the NRC staff has determined that additional information in needed to complete this review. The request for additional information (RAI) is provided in the Enclosure 2.

An Audit was held on December 8, 2009, from 8:00 a.m. until 5:30 p.m. at Entergy Headquarters at 1340 Echelon Parkway, Jackson, Mississippi. An exit meeting was held from 5:30 p.m. to 6:00 p.m.

The NRC Audit participants were

Stephen Dinsmore (NRC)
Jigar Patel (NRC)
Donnie Harrison (exit meeting only)

The Entergy participants were

Loys Bedell (Entergy)
Ken Powers (Entergy)
Paul Sicard (Entergy)
Gary Smith (Entergy)
Deepak Rao (Entergy)

Information reviewed

The principal documents supporting the audits were the licensee's two submittals that detailed the peer review results (generally referred to as findings) and the licensee's resolution of those review findings. The additional proprietary documents were available during the audit were:

- "RBS PRA Self Assessment Rev. 2," Memo with attachment from E.T. Burns, ERIN Engineering to Deepak Rao, Entergy dated February 2, 2009, ERIN correspondence number C247080005-8620
- "PRA Quality for RI - ISI Application," Memo with attachment from E.T. Burns, ERIN Engineering to Deepak Rao, Entergy dated February 4, 2009, ERIN correspondence number C247080010-8506 (Rev 2)

The licensee had computer access to all calculations, reports, logic models, procedures, and work files supporting the RBS PRA and the PRAs for other Entergy nuclear stations. Entergy's engineering staff accessed work files illustrating information related to the issues discussed. The analyses in individual work files were not audited as part of the review of the relief request. Instead, the characteristics of the information in the Entergy's work files were used to support the NRC staff's understanding of the licensee's conclusions leading to the audit findings listed in Table 1 of this audit summary. For example, the existence of performance shaping factor (PSF) entries in a human error worksheet was sufficient to conclude that PSFs were developed and used. Individual estimates of PSFs were neither reviewed nor audited.

Background

By letter dated June 16, 2009, as supplemented by letter dated August 11, 2009, Entergy, pursuant to 10 CFR 10.55a(a)(3)(i), submitted a relief request, "Request for Approval of Risk-informed Inservice Inspection (ISI) Program." The request for relief would implement an RI-ISI for piping at RBS. As described in RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," the NRC staff reviews the quality of the licensee's PRA using the guidance available in RG 1.200. Revision 1 of RG 1.200 was in effect when the licensee submitted its relief request. Revision 1 provides for assessment of the technical adequacy of a PRA used to support a licensing request based on the results of peer reviews where the characteristics of the licensee's PRA analyses are compared to the characteristics described in ASME RA-Sb-2005, "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications."

ASME RA-Sb-2005 describes slightly more than 300 supporting requirements (SRs) which, taken together, describe the analyses required to develop an internal events PRA. Details related to the technical descriptions of the SRs in the standards and the NRC staff's endorsement of the SRs can be located in the ASME standard and RG 1.200. The results of a PRA review are documented as findings where the reviews comment on apparent differences between the licensee's analyses and that described in the ASME standard. The relief request included a table identifying 72 SRs in the ASME standard that had been assigned "not met" (Not-Met) during the Gap Analysis. An additional 30 ASME SRs were assigned Capability Category I instead of the higher categories of II or III. In its submittal, Entergy reported that it

had evaluated all the SRs that had been assigned as Not-Met or Capability Category I and concluded that the RBS PRA models are suitable for use in the RI-ISI application.

The audit was undertaken to:

- Gain a better understanding of the detailed calculations, including both the PRA techniques that have been used as well as the concerns that lead to an assignment of Not-Met or a Capability Category I to the SRs,
- Identify additional information that might be needed to document the NRC staff's conclusions regarding the adequacy, or lack of adequacy, of the PRA to support the RI-ISI submittal, and
- Establish an understanding of potential concerns to inform future RI-ISI regulatory actions.

Audit Activities

The audit was conducted by discussing each of 67 SRs that had been identified as either Not-Met or as Capability Category I during the Gap Analysis. As needed, Entergy located and displayed work files on the computer that illustrated their discussions. Thirty-five additional SRs identified as either Not-Met or a Capability Category I during the Gap Analysis were not individually discussed during the audit because the SRs solely addressed the "documentation" high-level requirements for the elements, or were identified as Capability Category I for the large early release element. Failure to meet a documentation SR is not judged in itself to result in unacceptable PRA results. Meeting large early release frequency (LERF) SRs with Capability Category I is generally conservative and judged to be acceptable based on the absolute binning used in the Code Case N-716 process (LERF SRs assigned a Not-Met were individually evaluated).

To confirm the licensee's conclusion that all gaps had been resolved and identify any additional information that would be needed to be docketed, each SR that was discussed was characterized based on its potential impact on the RI-ISI program. To further clarify the potential impact of a Not-Met or an assigned Capability Category I on the proposed RI-ISI program, the potential impacts were grouped into categories based on the attribute of the potential impact. The following is the final list of attributes:

1. Conservatism in either the consequence assessment or the failure potential will result in a larger inspection population.
2. Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance. This includes SRs which addressed uncertainty because Code Case N-716 uses generic HSS [high safety significant] segments, gross binning of segments' significance, and summarizing change in risk evaluations

3. The detailed flooding analyses will “make up” for the weakness in the baseline study.
4. Resolving gap will not impact the RI-ISI results
 - a. A sensitivity analysis was performed.
 - b. Discarded.
5. Gap is a documentation gap only (does not apply to technical SRs).
6. Combined with (2).
7. The gap analysis reviewer did not have access to the documentation that illustrated that the SR satisfied the appropriate capability category.
8. Further evaluation has been or will be done while finalizing revision 5 of the PRA. The results of these evaluations may or may not lead to changes to the PRA but any changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its “living program” process after revision 4 is completed.
9. Further evaluation is needed before implementing the RI-ISI program because changes may affect the proposed RI-ISI program. Each gap assigned this attribute was included in an RAI (Enclosure 2) and the responses would need to be reviewed by the staff during the review of this relief request.

Results

All 67 SRs that were discussed during the audit are dispositioned as described in Table 1 of this audit report. As indicated in Table 1, six SRs were identified that might, individually, affect the risk-informed/ safety-based ISI (RIS-B) results and for which further information will be required before the NRC staff can conclude its review of the relief request. The NRC staff concurs that the licensee’s preliminary determination that the cumulative affect of resolving the other 61 gaps is not expected to affect the RIS-B. However, synergistic affects between numerous unrelated or tangentially related changes to the complex models in PRA can only be included in the results with certainty by changing the PRA model. The licensee stated that it is in the process of revising the PRA model which will become Revision 5 when completed. Revision 5 is currently scheduled for completion by December 2010. The licensee reported during the Audit and subsequently in its March 12, 2010, letter that it plans a Peer Review of Revision 5 against NEI 05-04 that will be conducted during 2011. This schedule for completing the update of the PRA and the peer review of the update will not be complete by December 2010, the date the licensee needs to have an authorized RIS-B program in order to properly integrate the RIS-B program into its outage planning for 2011. The licensee stated that it would provide a commitment to review the impact of the revised and peer reviewed Revision 5 PRA on the RIS-B program by December 2011.

Table 1: Disposition for Gaps to ASME RA-Sb-2005 Supporting Requirements

SR	DISPOSITION
IE-A4	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
IE-A2	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed. (3) The detailed flooding analyses will "make up" for the weakness in the baseline study.
IE-A6	(3) The detailed flooding analyses will "make up" for the weakness in the baseline study.
IE-A5	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
IE-A7	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed. (3) The detailed flooding analyses will "make up" for the weakness in the baseline study.
IE-B4	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
IE-C3	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed. (3) The detailed flooding analyses will "make up" for the weakness in the baseline study.

SR	DISPOSITION
IE-C4	<p>(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.</p> <p>(3) The detailed flooding analyses will "make up" for the weakness in the baseline study.</p>
IE-C12	<p>(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.</p> <p>(3) The detailed flooding analyses will "make up" for the weakness in the baseline study.</p>
IE-C10	<p>(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.</p> <p>(3) The detailed flooding analyses will "make up" for the weakness in the baseline study.</p>
AS-B5	<p>(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.</p>
AS-A9	<p>QUESTION - Please review the TH analyses relied upon in scenarios relevant to RI-ISI and summarize how the plant-specific applicability of these success criteria is demonstrated.</p>
AS-A10	<p>(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.</p>
SC-A2	<p>(1) Conservatism in either the consequence assessment of the failure potential will result in a larger inspection population.</p>
SC-A5	<p>(9) Please review the scenarios relevant to RI-ISI and summarize how an appropriate mission time was developed and used.</p>

SR	DISPOSITION
SC-A6	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SC-B1	(9) TH question included in AS-A9.
SC-B4	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SC-B5	(7) The peer reviewer did not have access to the documents that summarize and compare PRA results illustrating that the SR is met.
SY-A4	(3) The detailed flooding analyses will "make up" for the weakness in the baseline study.
SY-A5	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SY-A6	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SY-A8	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SY-A11	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SY-A13	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
SY-A14	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.

SR	DISPOSITION
SY-A15	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
SY-A17	(9) Please review the scenarios relevant to RI-ISI and confirm that potential system interactions that could cause a mitigative function to be tripped off or isolated have been modeled.
SY-A19	System interactions included in SY-A17
SY-A22	(4a) Resolving gap will not impact the RI-ISI results. A sensitivity analysis was performed
SY-B6	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
SY-B7	(1) Conservatism in either the consequence assessment of the failure potential will result in a larger inspection population.
SY-B12	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
HR-A1	(7) The peer reviewer did not have access to the description of the method used by the licensee to identify re-alignment of equipment that illustrates that the SR is met.
HR-A3	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
HR-B1	(9) Describe how operator actions can be screened from consideration. Please review the scenarios relevant to RI-ISI and confirm that the SR requirements have been met for these scenarios.
HR-B2	(9) Describe how operator actions can be screened from consideration. Please review the scenarios relevant to RI-ISI and confirm that the SR requirements have been met for these scenarios.
HR-G4	(9) Describes how time available for human actions is developed. Please review the scenarios relevant to RI-ISI and confirm that the SR requirements have been met for these scenarios.
HR-C3	(4a) Resolving gap will not impact the RI-ISI results. A sensitivity analysis was performed.

SR	DISPOSITION
HR-D3	(7) The peer reviewer did not have access to the spreadsheets used to include PSF [performance shaping factors] in HEP [human error probability] that illustrates that the SR met the Category II characteristics.
HE-E2	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
HR-G3	(7) The peer reviewer did not have access to the spreadsheets used to include PSF in HEP that illustrates that the SR met the Category II characteristics.
HR-G6	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
DA-A1a	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
DA-C12	(1) Conservatism in either the consequence assessment of the failure potential will result in a larger inspection population.
DA-C13	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
DA-C14	(4a) Resolving gap will not impact the RI-ISI results. A sensitivity analysis was performed.
DA-C15	(4a) Resolving gap will not impact the RI-ISI results. A sensitivity analysis was performed.
DA-D7	(8) Further evaluation has or will be done while finalizing revision 5 of the PRA which may or may not lead to changes to the PRA. Changes are not expected to affect the RI-ISI program. The licensee will need to reevaluate the RI-ISI program under its "living program" process after revision 4 is completed.
QU-A2b	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
QU-B9	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR is met.

SR	DISPOSITION
QU-D1a	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR is met.
QU-D1b	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR is met.
QU-D1c	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR is met.
QU-D3	(7) The peer reviewer did not have access to the documents that summarize and compare PRA results illustrating that the SR met the Category II characteristics.
QU-D4	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR is met.
QU-D5a	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that the SR met the Category II characteristics.
QU-E3	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.
LE-A5	(7) The peer reviewer did not have access to the description of the top event model that illustrates that this SR is met.
LE-C10	(4a) Resolving gap will not impact the RI-ISI results. A sensitivity analysis was performed.
LE-D3	See IE-A2
LE-D6	(7) The peer reviewer did not have access to the original PRA documentation that illustrates that the SR is met.
LE-F1a	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that this SR is met.
LE-F1b	(7) The peer reviewer did not have access to the Entergy procedures describing quantification process that illustrates that this SR is met.
LE-F3	(2) Method uses wide range of frequencies as binning. Changes that might only change some input numbers or introduce unlikely operational configurations are of limited importance.

REQUEST FOR ADDITIONAL INFORMATION
ON RISK-INFORMED INSERVICE INSPECTION (RI-ISI)
PROGRAM BASED ON CODE CASE N-716
FOR ENTERGY OPERATIONS, INC.
RIVER BEND STATION, UNIT 1
DOCKET NO. 50-458

On December 8, 2009, an audit of the licensee's resolution of comments from the previous reviews of its probabilistic risk assessment (PRA) was held at Entergy Headquarters at 1340 Echelon Parkway, Jackson, Mississippi. The U.S. Nuclear Regulatory Commission (NRC) staff has determined additional information is needed to complete this review. The following requests for additional information (RAIs) are applicable to the supporting requirements (SRs) that were dispositioned with an assigned attribute of (9) in Table 1 of the Audit report (Enclosure 1).

1. The licensee evaluated many of the SRs that were assigned as "not met" or a Category I and concluded that resolving the difference between the assigned category and Category II would not substantively affect the RI-ISI results. These SRs were discussed during the audit and the NRC staff concurs that, individually, the proposed modification would not be expected to affect the RI-ISI program. The cumulative impact of all these changes is not expected to affect the RI-ISI program but this conclusion cannot be confirmed until after the PRA has been updated. The licensee stated it intends to update its PRA to meet the Category II requirements for these SRs while completing the next PRA update. The next update is scheduled to be concluded in December of 2010. However, the licensee has requested that the RI-ISI program be authorized by December 2010 in order to be properly integrated into its outage schedules. The licensee is being asked to provide a commitment summarizing its schedule to reevaluate its RI-ISI program after the PRA update.
2. Changes to the PRA that might be required to meet Category II for a few SRs could, individually, be important (i.e., affect RI-ISI results) and, therefore, the NRC staff requests the following additional information before the staff completes its review of the proposed RI-ISI program.
 - 2a. AS-A9 (Gap to capability category II). Please review the TH [thermal hydraulic] analyses relied upon in scenarios relevant to RI-ISI and summarize how the plant-specific applicability of these success criteria are demonstrated.
 - 2b. SC-A5 (not met). Please review the scenarios relevant to RI-ISI and summarize how an appropriate mission time was developed and used.

- 2c. SY-A17 (not met): Please review the scenarios relevant to RI-ISI and confirm that potential system interactions that could cause a mitigative function to be tripped off or isolated have been modeled.

- 2d. HR-B1 (not met), HR-B2 (not met), and HR-G4 (not met). HR-B1 and HR-B2 describes how operator actions can be screened from consideration. HR-G4 describes how time available for human actions is developed. Please review the scenarios relevant to RI-ISI and confirm that the SR requirements have been met for these scenarios.

April 30, 2010

Vice President, Operations
Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775

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Dear Sir or Madam:

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A copy of the U.S. Nuclear Regulatory Commission (NRC) staff Audit Report is provided in Enclosure 1. In addition, the staff has determined additional information is needed to complete this review. The request for additional information is provided in the Enclosure 2 of this letter. If you have any questions regarding the Audit Report, please contact me at (301) 415-1445.

Sincerely,
/RA/

Alan B. Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
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Docket No. 50-458

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