



Entergy

River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775
Tel 225-381-4149

Jerry C. Roberts
Director, Nuclear Safety
Assurance

RBG-46923

June 16, 2009

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Request for Alternative RBS- ISI-012
Request to Extend the Second ASME Inservice Inspection Interval,
River Bend Station
Docket No. 50-458
License No. NPF-47

REFERENCES: 1. Entergy Letter to NRC dated November 1, 2006, Request for
Alternative RBS ISI-005, Request to Extend Current ASME Inservice
Inspection Interval in accordance with NRC Information Notice 98-44
(CNRO-2006-00047)
2. NRC letter to Entergy dated May 17, 2007, Approving Request to
Extend Current ASME Inservice Inspection Interval; RBS ISI-005 (TAC
No. MD 3442)

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(a)(3)(ii), Entergy requests approval for an extension of the second ISI interval for examinations under ASME Examination Categories B-J, C-F-1 and C-F-2 at River Bend Station (RBS) to the end of its sixteenth refueling outage, currently scheduled for First Quarter 2011. This request is enclosed as Attachment 1, Request for Alternative RBS-ISI-012. This request does not involve ASME Examination Category B-F piping welds, which are examined in accordance with Generic Letter 88-01, *NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping*. Examinations for all Examination Category B-F dissimilar metal welds for the second ISI interval have been completed. The requested extension would lengthen the RBS second ISI interval for the subject Examination Categories approximately twenty-five months beyond the one-year extension provision allowed by the ASME Code, Section XI, IWB-2412(b).

Concurrent with this submittal, RBS has submitted a Risk Informed Inservice Inspection (RI-ISI) Request for Alternative RBS-ISI-013 that was developed per the methodology of ASME Code Case N-716. The initial schedule called for completion of the risk-informed submittal and docketing of the request prior to January 1, 2008. Entergy was unable to meet this schedule due to numerous factors. A summary of Entergy's actions related to the RI-ISI submittal are included as Attachment 2.

ACR
NAR

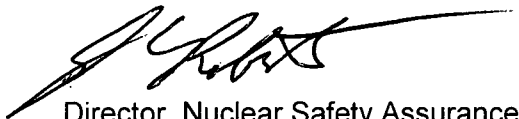
Entergy previously requested an extension of the second ISI interval to develop and obtain approval for a risk-informed/safety-based Inservice Inspection (RIS_B) program for piping as discussed in Reference 1. The request was approved by NRC as indicated in Reference 2. The extension included a scope of 123 examinations for the second ISI interval. This request (RBS-ISI-012) for an additional extension of the second ISI interval is based on hardship due to personnel radiation exposure avoidance. Entergy will perform 73 of the remaining 123 examinations required to complete the second ISI interval for Examination Categories B-J, C-F-1, and C-F-2 prior to startup from Refueling Outage 15 (RF-15). The remaining 50 examinations involve an estimated personnel radiation exposure of approximately 15 REM. This radiation exposure estimate is based on detailed job planning and exposure estimates for each examination. The anticipated radiation exposure for each examination within this subset is discussed in Attachment 1. In addition, Attachment 1 provides additional information related to prior examination results for the subject welds. The extension of the second ISI interval and deferral of these 50 examinations is the subject of this request.

Based on the quantity of similar examinations previously performed at RBS and throughout the industry, the results of those examinations, and the estimated personnel radiation exposure associated with their performance, Entergy believes performing these examinations constitutes an undue hardship without a compensating increase in the level of quality and safety. Therefore, Entergy requests to defer performing 50 examinations until RF-16 currently scheduled for the First Quarter 2011. At that time, the examinations would be performed under the requirements of the Code of record for the current interval, or the requirements of the proposed RI-ISI program, if approved.

Entergy requests approval by September 10, 2009.

Commitments associated with this submittal are included in Attachment 3. If you have any questions or require additional information, please contact David Lorring, Manager, Licensing at (225) 381-4157.

Sincerely,



Director, Nuclear Safety Assurance
River Bend Station - Unit 1

JCR/DNL/bmb

Attachments:

1. Request for Alternative - RBS-ISI-012
2. Actions Previously Taken by Entergy
3. Licensee-Identified Commitments

cc: Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

NRC Senior Resident Inspector
P. O. Box 1050
St. Francisville, LA 70775

U. S. Nuclear Regulatory Commission
Attn: Mr. Alan B. Wang
MS O-7 D1
Washington, DC 20555-0001

Mr. Jeffrey P. Meyers
Louisiana Department of Environmental Quality
Office of Environmental Compliance
Attn. OEC - ERSD
P. O. Box 4312
Baton Rouge, LA 70821-4312

ATTACHMENT 1 TO
RBG-46923
REQUEST FOR ALTERNATIVE
RBS-ISI-012

**ENTERGY OPERATIONS, INC.
RIVER BEND STATION
REQUEST FOR ALTERNATIVE
RBS-ISI-012**

Components/Numbers: Piping Welds

Code Class: 1 and 2

References: 1. ASME Section XI, 1992 Edition
2. Entergy's Request for Alternative RBS-ISI-005 (CNRO 2006-00047)
3. NRC SER dated May 17, 2007

Examination Category: B-J, C-F-1, and C-F-2

Item Numbers: All

Description: Piping Welds

Unit / Inspection Interval Applicability: River Bend Station (RBS) second (2nd) ISI 10-year interval

I. CODE REQUIREMENT(S)

ASME Section XI Table IWB-2412-1 defines an Inservice Inspection (ISI) interval to be 10 years in duration. IWB-2412(b) allows extending the interval for one year to coincide with a plant outage.

II. REQUESTED ALTERNATIVE

Pursuant to 10 CFR 50.55a(a)(3)(ii), Entergy Operations, Inc. (Entergy) requests authorization to extend the second ISI interval to include two additional refueling outages, specifically the fifteenth refueling outage (RF-15), currently scheduled for fall 2009, and the sixteenth refueling outage (RF-16), currently scheduled for first quarter 2011, for items in Examination Categories B-J, C-F-1, and C-F-2. This alternative does not affect the third (3rd) ISI interval which commenced June 1, 2008.

In Reference 2, Entergy requested an extension of the second ISI interval to support development of a risk informed/safety-based ISI (RIS_B) program. This request was approved as indicated in Reference 3. Based on NRC approval of the extension, Entergy deferred the examinations remaining from the third period of the second ISI interval until the end of RF-15 with the intention of deriving the percentage of examinations to be completed from the RIS_B program requirements.

Delays in the development of the RIS_B program basis have necessitated the need for RBS to request additional relief while NRC evaluates the proposed RBS RIS_B program submitted as Request for Alternative RBS-ISI-013. This request (RBS-ISI-012) proposes further deferral of approximately 40% of the remaining examinations (50 of the remaining 123) for the second ISI interval until the end of RF-16 (2011).

Entergy evaluated the scope of remaining examinations for hardship, and developed comprehensive tabulations identifying each examination, including those examinations Entergy will perform and those examinations Entergy requests to defer. The tabulations are included in Enclosure A of this Attachment. Provided with each item is the system and component designation, the Examination Category, the previous inspection history, the overall anticipated radiation exposure for examination, and any additional hardships.

III. BASIS FOR RELIEF

RBS has completed all required examinations for its second ISI interval as defined by the ASME Code, Section XI for Inspection Program B for all Examination Categories with the exception of 123 examinations under Examination Categories B-J, C-F-1 and C-F-2. Of the 123 examinations remaining under the subject Examination Categories, Entergy commits to perform the 73 examinations during operating cycle/RF-15, which would put the combined examination completion percentage for the subject Examination Categories at approximately 90% for the second ISI interval.

Entergy requests deferral of performance of 50 of the 123 examinations remaining until the end of RF-16 for personnel radiation exposure avoidance. Approval of deferral to RF-16 would allow RBS to implement the RIS_B program during the third inspection period of the second ISI interval. Remaining examinations from the second ISI interval that would be required under the proposed RIS_B program if approved will be completed by the end of RF-16. If not approved, Entergy will perform all 50 of the deferred examinations prior to startup from RF-16. This will complete the second ISI interval inspection requirements.

Deferring performance of the 50 examinations as proposed would significantly reduce the personnel radiation exposure received during the refueling outage RF-15. To accomplish this, Entergy requires approval of extension of the second ISI interval to the end of RF-16 for the subject Examination Categories, which would lengthen the second ISI interval to approximately 25 months beyond the Code-allowed interval duration.

IIIa Summary of Examinations Performed to Date

A review of examinations performed during the second ISI interval in refueling outages RF-8 through RF-14 on similar components in the same Examination Categories revealed the following results:

- Examination Category B-J
182 examinations completed. No relevant indications identified.
- Examination Category C-F-1
14 examinations completed. No relevant indications identified.

- Examination Category C-F-2
51 examinations completed. No relevant indications identified.

A review of Entergy and industry OE along with research conducted by EPRI and ASME clearly indicate that there is a very low likelihood of failure of the welds remaining to be examined. The primary degradation mechanisms associated with known failures are addressed under augmented programs that Entergy will continue to implement as committed. Entergy believes that continued operation with the 50 remaining examinations deferred for an additional cycle will not reduce the level of quality or safety.

IIIb Summary of Review of Remaining Examination Scope

Entergy has reviewed the entire scope of remaining examinations and the effort required to perform each examination, including all necessary support activities. This review identified a total anticipated personnel radiation exposure of 17.63 REM for performing the remaining 123 examinations. In reviewing the exposure information to determine which examinations to request for deferral, various exposure thresholds were considered. After careful consideration, an exposure threshold of greater than 100 mREM for examination performance was chosen as the cutoff point for which deferral would be requested.

This threshold results in a request for deferral of 50 examinations to RF-16. 73 of the 123 examinations are below this threshold and Entergy will perform these examinations prior to the end of RF-15. Entergy estimates the proposed deferral in the performance of 50 examinations would reduce the expected personnel radiation exposure by approximately 15-REM, representing 85% of the total exposure for the 123 remaining examinations.

IIIc Summary of Examinations Entergy Will Perform

Entergy proposes to perform 73 of the remaining examinations prior to the end of RF-15. These examinations will result in an estimated personnel radiation exposure of 2.7 REM. This scope comprises approximately 59% of the remaining examinations, and would bring the total completed in the second ISI interval for these Examination Categories to 90%.

IIId Summary of Examinations Entergy Proposes to Defer

Entergy requests to defer 50 examinations until RF-16. Estimated personnel radiation exposure values are provided associated with Radiation Protection (RP) surveys and monitoring, insulation removal, scaffolding erection and disassembly, weld preparation and restoration activities. Examinations are on components located in the following areas:

- 7 are located in the Drywell between the reactor vessel and the biological shield wall, a very high radiation area during power operations and plant outages. Plans for RF-15 identified an expected personnel radiation exposure of approximately 3.9 REM.
- 25 are located in the Drywell, a very high radiation area during power operations and a high radiation area during plant outages. Plans for RF-15 identified a total expected personnel radiation exposure of approximately 6.7 REM.
- 9 are located in the Steam Tunnel, a very high radiation area during power operations and a high radiation area during plant outages. Plans for RF-15 identified a total expected personnel radiation exposure of approximately 2.4 REM.

- 9 are located in the Auxiliary Building in high radiation areas. Plans for Cycle-15 identified a total expected personnel radiation exposure of approximately 2.1 REM.

IV. Conclusion

10CFR50.55a(a)(3) states:

Proposed alternatives to the requirements of paragraphs (c), (d), (e), (f), (g), and (h) of this section or portions thereof may be used when authorized by the Director of the Office of Nuclear Reactor Regulation. The applicant shall demonstrate that:

- (i) The proposed alternatives would provide an acceptable level of quality and safety, or*
- (ii) Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.*

Deferral of 50 of the remaining examinations is expected to reduce personnel radiation exposure by approximately 15 REM. Under the proposed RBS RIS_B program submitted as RBS-ISI-013, the majority of these examinations will not be required. Entergy believes performing these 50 examinations constitutes an undue hardship without a compensating increase in the level of quality or safety.

A review of operational experience of examinations of similar welds at RBS and in the industry has not identified any significant indication of weld degradation in similar materials, configurations and applications. Upon completion of the 73 examinations in RF-15, the total number of examinations completed from the associated Examination Categories will be approximately 90 percent of the total required scope for the second ISI interval. Therefore, Entergy believes that performing the proposed scope of 73 examinations combined with the quantity of examinations previously performed will provide sufficient information to support the continued safe operation of RBS.

As discussed above, the proposed extension of the second ISI interval for the selected examinations under the subject Examination Categories to the end of RF-16 would allow sufficient time for NRC to review the RBS risk-informed ISI submittal while not affecting future ISI intervals. Therefore, Entergy requests authorization to perform the requested alternative to the Code requirement pursuant to 10 CFR 50.55a(a)(3)(ii).

Supporting Documentation

1. *Revised Risk-informed Inservice Inspection Evaluation Procedure*, EPRI, Palo Alto, CA: 1999. Report No. TR-112657
2. USNRC, Regulatory Guide 1829, "Estimating Loss-of-Coolant Accident (LOCA) Frequencies Through the Elicitation Process", Volumes 1 and 2, April 2008
3. Kulat, S. Riccardella, P., and Fougrousse, R., "Evaluation of Inservice Inspection Requirements for Class 1, Category B-J Pressure Retaining Welds in Piping", ASME Section XI Task Group on ISI Optimization, Report No. 92-01-01, July 1995.

Enclosures

- A. Comprehensive Tabulations of Remaining Examinations

ENCLOSURE A
COMPREHENSIVE TABULATIONS OF REMAINING EXAMINATIONS

TABLE 1 EXAMINATIONS ENTERGY WILL PERFORM										
NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
1	B-J	RB	201	SLS-150-008-1	SLS-007A-FW023A	PIPE-TO-FLANGE	Acceptable 1st Int exam	92-IR-22017	0.001	
2	B-J	RB	201	SLS-150-009-1	SLS-006B-FW011A	PIPE-TO-FLANGE	First Inspection	N/A	0.001	
3	B-J	AB	205	CSL-010-041-1	CSL-041A-FW001	VALVE TO PIPE	Acceptable 1st Int exam	1-UTA-CSL-001 1-UTC-CSL-001	0.002	
4	B-J	STM	208	MSI-002-027-1	MSI-027A-FW001	PIPE-TO-VALVE	Acceptable 1st Int exam	94-IR-22156	0.003	
5	B-J	STM	208	MSI-002-027-1	MSI-027A-FW002	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22156	0.003	
6	B-J	STM	208	MSI-002-027-1	MSI-027A-FW003	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22156	0.003	
7	B-J	STM	208	MSI-002-027-1	MSI-027A-FW004	PIPE-TO-90° ELL	Acceptable 1st Int exam	94-IR-22156	0.003	
8	B-J	STM	208	MSI-002-027-1	MSI-027B-FW001	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22156	0.003	
9	C-F-2	AB	203	CSH-016-002-2	CSH-020B-FW009A	PIPE-TO-TEE	First Inspection	N/A	0.004	
10	C-F-2	AB	203	CSH-020-020-2	CSH-020B-FW001A	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22211	0.004	
11	C-F-2	AB	203	CSH-020-020-2	CSH-020B-FW010	PIPE-TO-PIPE	Acceptable 1st Int exam	94-IR-22213	0.004	
12	C-F-2	AB	203	CSH-020-020-2	CSH-020B-FW011	PIPE-TO-FLANGE	First Inspection	N/A	0.004	
13	C-F-2	AB	203	CSH-020-020-2	CSH-020B-SW013	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22213	0.004	
14	C-F-2	AB	204	RHS-014-107-2	RHS-107C-SW23	PIPE TO ELL	First Inspection	N/A	0.008	
15	C-F-2	AB	204	RHS-014-107-2	RHS-107C-SW24	PIPE TO ELL	First Inspection	N/A	0.008	
16	C-F-2	AB	204	RHS-014-044-2	RHS-044A-XI-FW003	FLANGE TO WELD	Acceptable 1st Int exam	94-IR-21627	0.009	
17	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW20	PIPE-TO-90° ELL	First Inspection	N/A	0.012	
18	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW21	PIPE-TO-90° ELL	First Inspection	N/A	0.012	
19	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW22	PIPE-TO-90° ELL	First Inspection	N/A	0.012	
20	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW30	PIPE-TO-90° ELL	First Inspection	N/A	0.012	
21	C-F-2	RCIC	209	ICS-012-012-2	ICS-012B-FW007	PIPE-TO-90° ELL	First Inspection	N/A	0.014	
22	C-F-2	RCIC	209	ICS-012-012-2	ICS-012B-FW009	PIPE-TO-REDUCER	First Inspection	N/A	0.014	
23	C-F-2	RCIC	209	ICS-012-012-2	ICS-012B-SW004	PIPE-TO-90° ELL	First Inspection	N/A	0.014	
24	C-F-2	RCIC	209	ICS-012-012-2	ICS-012B-SW005	PIPE-TO-TEE	First Inspection	N/A	0.014	
25	B-J	RB	204	RHS-010-067-1	RHS-067A-FW001	PIPE-TO-VALVE	Acceptable 1st Int exam	2-RHS-UTA-002 2-RHS-UTC-003	0.014	
26	B-J	RB	204	RHS-010-067-1	RHS-067A-FW002	PIPE-TO-45° ELL	Acceptable 1st Int exam	2-RHS-UTA-001 2-RHS-UTC-002	0.014	
27	B-J	RB	204	RHS-010-067-1	RHS-067A-FW017	PIPE-TO-45° ELL	Acceptable 1st Int exam	2-RHS-UTA-003 2-RHS-UTC-001	0.014	

TABLE 1
EXAMINATIONS ENTERGY WILL PERFORM

NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
28	B-J	RB	204	RHS-010-016-1	RHS-016A-FW002	PIPE-TO-VALVE	Acceptable 1st Int exam	1-UTA-RHS-009 1-UTC-RHS-008	0.02	
29	C-F-2	AB	204	RHS-012-061-2	RHS-061C-FW002	PIPE-TO-45° ELL	First Inspection	N/A	0.02	
30	C-F-2	AB	204	RHS-012-061-2	RHS-061C-FW003	PIPE-TO-90° ELL	First Inspection	N/A	0.02	
31	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW017	PIPE-TO-45° ELL	First Inspection	N/A	0.02	
32	C-F-2	AB	204	RHS-012-061-2	RHS-061C-SW019	PIPE-TO-90° ELL	First Inspection	N/A	0.02	
33	C-F-2	RCIC	209	ICS-012-043-2	ICS-043A-SW001	PIPE-TO-90° ELL	First Inspection	N/A	0.0205	
34	C-F-2	RCIC	209	ICS-012-043-2	ICS-043A-SW002	PIPE-TO-90° ELL	First Inspection	N/A	0.0205	
35	C-F-2	AB	205	CSL-010-010-2	CSL-010A-FW003B	PIPE TO TEE	First Inspection	N/A	0.021	
36	C-F-2	AB	204	RHS-014-012-2	RHS-012A-FW002	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-010 5-RHS-UTC-010 5-RHS-UTL-010	0.024	
37	C-F-2	AB	204	RHS-014-012-2	RHS-012A-FW003	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-009 5-RHS-UTC-009	0.024	
38	C-F-2	AB	204	RHS-014-012-2	RHS-012A-SW044	PIPE-TO-70° ELL	First Inspection	N/A	0.024	
39	C-F-2	AB	204	RHS-014-012-2	RHS-012A-SW047	PIPE-TO-70° ELL	First Inspection	N/A	0.024	
40	B-J	STM	208	MSI-002-014-1	MSI-014A-FW001	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22155	0.028	
41	B-J	STM	208	MSI-002-014-1	MSI-014A-FW002	PIPE-TO-TEE	Acceptable 1st Int exam	94-IR-22155	0.028	
42	C-F-2	AB	204	RHS-014-107-2	RHS-107C-FW005	PIPE-TO-VALVE	First Inspection	N/A	0.028	
43	C-F-2	AB	204	RHS-014-107-2	RHS-107C-FW017	PIPE TO PIPE	First Inspection	N/A	0.028	
44	C-F-2	AB	204	RHS-014-107-2	RHS-107C-SW041	PIPE TO ELL	First Inspection	N/A	0.028	
45	B-J	DW	107	FWS-012-036-1	FWS-036A-SW016	PIPE-TO-45° ELL	Acceptable 1st Int exam	2-FWS-UTA-002 2-FWS-UTC-002	0.029	
46	B-J	DW	107	FWS-012-036-1	FWS-036A-SW017	PIPE-TO-45° ELL	Acceptable 1st Int exam	2-FWS-UTA-001 2-FWS-UTC-001	0.029	
47	B-J	STM	208	MSI-002-027-1	MSI-027C-FW003	PIPE-TO-TEE	Acceptable 1st Int exam	89-IR-2257	0.03	
48	B-J	STM	208	MSI-002-027-1	MSS-700A-FWB12	2" BRANCH	Acceptable 1st Int exam	89-IR-22486	0.03	
49	B-J	STM	109	MSS-024-060-1	MSS-007A-FW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	1-UTA-MSS-006 1-UTC-MSS-005	0.031	
50	B-J	STM	109	MSS-024-060-1	MSS-007A-SW004	PIPE-TO-PIPE	Acceptable 1st Int exam	1-UTA-MSS-005 1-UTC-MSS-004	0.031	
51	B-J	DW	107	FWS-012-036-1	FWS-036A-FW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	2-FWS-UTA-007 2-FWS-UTC-007	0.0315	
52	B-J	DW	107	FWS-012-036-1	FWS-036A-SW013	PIPE-TO-90° ELL	Acceptable 1st Int exam	1-UTA-FWS-001 1-UTC-FWS-001	0.0315	

TABLE 1
EXAMINATIONS ENTERGY WILL PERFORM

NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
53	B-J	STM	208	MSI-002-027-1	MSI-027B-FW003A	PIPE-TO-TEE	Acceptable 1st Int exam	1-PT-MSI-002	0.033	
54	B-J	STM	208	MSI-002-027-1	MSI-027B-FW004	PIPE-TO-TEE	Acceptable 1st Int exam	1-PT-MSI-002	0.033	
55	B-J	STM	109	MSS-024-058-1	MSS-005A-FW001	PIPE-TO-45° ELL	Acceptable 1st Int exam	2-MSS-UTA-003 2-MSS-UTC-002	0.04896	
56	B-J	STM	109	MSS-024-058-1	MSS-005A-SW007	PIPE-TO-PIPE	Acceptable 1st Int exam	2-MSS-UTA-003 2-MSS-UTC-002	0.04896	
57	B-J	STM	109	MSS-024-058-1	MSS-005A-SW008	PIPE-TO-PIPE	Acceptable 1st Int exam	2-MSS-UTA-003 2-MSS-UTC-002	0.04896	
58	C-F-2	STM	209	ICS-008-004-2	ICS-004A-FW001	PIPE-TO-TEE	Acceptable 1st Int exam	5-ICS-UTA-017 5-ICS-UTC-017 5-ICS-UTL-017	0.05	
59	C-F-2	RB	52	RDS-010-067-2	RDS-067-SW071	PIPE-TO-90° ELL	Acceptable 1st Int exam	96-IR-20368	0.06	
60	B-J	STM	109	MSS-024-059-1	MSS-006A-FW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	4-MSS-UTA-001 4-MSS-UTC-001	0.066	
61	B-J	DW	107	FWS-012-037-1	FWS-037A-FW001	PIPE-TO-REDUCING 90° ELL	First inspection	N/A	0.06666	
62	B-J	DW	107	FWS-020-040-1	FWS-040A-SW007	PIPE-TO-TEE	First inspection	N/A	0.06666	
63	B-J	DW	107	FWS-020-040-1	FWS-040A-SW008	PIPE-TO-TEE	First inspection	N/A	0.06666	
64	B-J	DW	204	RHS-010-034-1	RHS-034B-FW001	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-028 5-RHS-UTC-027	0.07333	
65	B-J	DW	107	FWS-012-038-1	FWS-038A-FW002	PIPE-TO-90° ELL	First inspection	N/A	0.075	
66	B-J	DW	601	WCS-003-312-1	WCS-006B2-XI-FW011	PIPE TO VALVE	Acceptable 1st Int exam	92-IR-26501	0.075	
67	B-J	DW	601	WCS-003-312-1	WCS-006B2-XI-FW013	PIPE TO REDUCER	First inspection	N/A	0.075	
68	B-J	DW	601	WCS-003-312-1	WCS-006B2-XI-SW004	TEE TO PIPE	Acceptable 1st Int exam	4-WCS-PT-004	0.075	
69	B-J	DW	601	WCS-003-312-1	WCS-006B2-XI-SW001	PIPE TO TEE	Acceptable 1st Int exam	4-WCS-PT-004	0.075	
70	C-F-2	STM	109	MSS-024-005-2	MSS-005B-FW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	96-IR-20085	0.076	
71	B-J	DW	204	RHS-010-016-1	RHS-016B-FW002	PIPE-TO-VALVE	Acceptable 1st Int exam	2-RHS-UTA-009 2-RHS-UTC-009	0.08	
72	B-J	RF	109	MSS-002-002-1	MSS-072A-FW011	PIPE TO FLANGE	First inspection	N/A	0.09	
73	B-J	STM	109	MSS-024-061-1	MSS-008A-FW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	3-MSS-UTA-001 3-MSS-UTC-001	0.096	

**TABLE 2 ,
EXAMINATIONS ENTERGY REQUESTS TO DEFER**

NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
1	B-J	DW	204	RHS-010-034-1	RHS-034A-SW014	PIPE-TO-90° ELL	Acceptable 1st Int exam	5-RHS-UTA-022 5-RHS-UTC-021 5-RHS-UTL-021	0.1120	
2	B-J	DW	107	FWS-012-036-1	FWS-036A-FW002	PIPE-TO-90° ELL	First inspection	N/A	0.1150	
3	B-J	DW	204	RHS-010-016-1	RHS-016B-FW005	PIPE TO VALVE	Acceptable 1st Int exam	2-RHS-UTA-009 2-RHS-UTC-009	0.1370	
4	B-J	DW	204	RHS-018-053-1	RHS-053B-FW001	PIPE TO VALVE	Acceptable 1st Int exam	5-RHS-UTA-011 5-RHS-UTC-011	0.1440	
5	B-J	DW	204	RHS-018-053-1	RHS-053B-FW002	PIPE TO 90° ELL	Acceptable 1st Int exam	1-UTA-RHS-010 1-UTC-RHS-010	0.1440	
6	B-J	DW	204	RHS-018-053-1	RHS-053B-SW003	PIPE TO 90° ELL	Acceptable 1st Int exam	1-UTA-RHS-013 1-UTC-RHS-012	0.1440	
7	B-J	DW	204	RHS-018-053-1	RHS-053B-SW004	PIPE TO 90° ELL	First inspection	N/A	0.1440	
8	B-J	DW	204	RHS-018-053-1	RHS-053B-SW005	PIPE TO 90° ELL	Acceptable 1st Int exam	1-UTA-RHS-010 1-UTC-RHS-010	0.1440	
9	B-J	STM	208	MSI-002-001-1	MSI-001A-FW003B	PIPE-TO-VALVE	Acceptable 1st Int exam	1-PT-MSI-003	0.1450	
10	B-J	STM	208	MSI-002-001-1	MSI-001A-FW008	PIPE-TO-90° ELL	Acceptable 1st Int exam	1-PT-MSI-003	0.1450	
11	C-F-2	STM	107	FWS-020-063-2	FWS-063A-FW004	PIPE-TO-VALVE	Acceptable 1st Int exam	5-FWS-UTC-002 5-FWS-UTA-002 5-FWS-UTS-003	0.1535	
12	B-J	STM	209	ICS-008-003-1	ICS-003A-FW008	PIPE TO 90° ELL	Acceptable 1st Int exam	1-UTA-ICS-004 1-UTC-ICS-005	0.1680	
13	B-J	STM	208	MSI-002-010-1	MSI-010A-FW003A	PIPE-TO-VALVE	Acceptable 1st Int exam	92-IR-24408	0.1770	
14	B-J	DW	209	ICS-008-001-1	ICS-001B-SW005	PIPE TO 90° ELL	First inspection	N/A	0.1820	
15	B-J	DW	204	RHS-010-034-1	RHS-034A-FW002	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-024 5-RHS-UTC-023 5-RHS-UTL-023	0.1960	
16	C-F-2	AB	204	RHS-014-039-2	RHS-039B-FW003	PIPE-TO-VALVE	First inspection	N/A	0.2000	
17	C-F-2	AB	204	RHS-014-039-2	RHS-039B-SW015	PIPE-TO-TEE	Acceptable 1st Int exam	92-IR-21805	0.2000	
18	C-F-2	AB	204	RHS-014-039-2	RHS-039B-SW016	PIPE-TO-TEE	First inspection	N/A	0.2000	
19	C-F-2	AB	204	RHS-014-039-2	RHS-039B-SW046	PIPE-TO-TEE	First inspection	N/A	0.2000	
20	B-J	DW	609	DTM-002-071-1	DTM-071A-FW004	PIPE TO PIPE	First inspection	N/A	0.2050	
21	B-J	DW	204	RHS-010-034-1	RHS-034B-FW002	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-026 5-RHS-UTC-025	0.22333	

TABLE 2
EXAMINATIONS ENTERGY REQUESTS TO DEFER

NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
22	B-J	DW	107	RHS-010-034-1	RHS-034B-FW003	PIPE-TO-VALVE	Acceptable 1st Int exam	5-RHS-UTA-025 5-RHS-UTC-024	0.22333	
23	B-J	DW	109	MSS-024-718-1	MSS-700A2-SW08M	SWEEPOLET-TO-FLANGE	Acceptable 1st Int exam	2-MSS-UTA-005 2-MSS-UTC-004	0.2240	
24	B-J	DW	601	WCS-003-311-1	WCS-003A-XI-FW003	PIPE TO VALVE	Acceptable 1st Int exam	92-IR-27201	0.2250	
25	B-J	DW	601	WCS-003-311-1	WCS-003A-XI-FW004	VALVE TO PIPE	Acceptable 1st Int exam	92-IR-27201	0.2250	
26	B-J	DW	204	RHS-018-053-1	RHS-053B-FW003	PIPE TO PENT 1 KJB Z20	Acceptable 1st Int exam	1-UTA-RHS-010 1-UTC-RHS-010	0.2300	
27	B-J	DW	204	RHS-018-053-1	RHS-053B-SW007	PIPE TO ELL	Acceptable 1st Int exam	1-UTA-RHS-013 1-UTC-RHS-012	0.2300	
29	B-J	DW	204	RHS-010-019-1	RHS-019A-FW005	PIPE TO VALVE	Acceptable 1st Int exam	4-RHS-UTA-018 4-RHS-UTC-011	0.2400	
29	B-J	BIO	203	CSH-010-045-1	CSH-045A-FW002	PIPE-TO-REDUCER	Acceptable 1st Int exam	5-CSH-UTA-016 5-CSH-UTC-015 5-CSH-UTL-015	0.2500	
30	B-J	BIO	205	CSL-010-043-1	CSL-043B-SW019	PIPE-TO-REDUCER	Acceptable 1st Int exam	4-CSL-UTA-001 4-CSL-UTL-001	0.2500	
31	B-J	BIO	107	FWS-012-035-1	FWS-035A-FW003	PIPE-TO-SAFE END	Acceptable 1st Int exam	2-FWS-UTC-011/012/013 2-FWS-UTA-010/011/012	0.2500	
32	B-J	BIO	107	FWS-012-038-1	FWS-038A-FW003	PIPE-TO-SAFE END	Acceptable 1st Int exam	4-FWS-UTA-013 4-FWS-UTC-009	0.2500	
33	C-F-2	AB	204	RHS-018-142-2	RHS-142A1-FW001	PIPE-TO-TEE	First Inspection	N/A	0.2600	
34	C-F-2	AB	204	RHS-018-142-2	RHS-142A1-FW003	PIPE-TO-TEE	First Inspection	N/A	0.2600	
35	C-F-2	AB	204	RHS-018-142-2	RHS-142A1-FW004	PIPE-TO-TEE	First Inspection	N/A	0.2600	
36	C-F-2	AB	204	RHS-018-142-2	RHS-142A1-FW005	PIPE-TO-TEE	First Inspection	N/A	0.2700	
37	C-F-2	AB	204	RHS-018-142-2	RHS-142A1-FW006A	PIPE-TO-45° ELL	Acceptable 1st Int exam	94-IR-21989	0.2700	
38	B-J	STM	609	DTM-002-097-1	MSS-900A3-FWD20	PIPE-TO-VALVE	Acceptable 1st Int exam	92-IR-24171	0.2740	
39	B-J	DW	609	DTM-002-069-1	MSS-900A3-FWD19	PIPE-TO-VALVE	First inspection	N/A	0.2800	
40	B-J	STM	107	FWS-020-047-1	FWS-047A-FW041	2" BRANCH	Acceptable 1st Int exam	3-FWS-PT-001	0.3400	
41	B-J	BIO	50	B13-REV-D001	B13-D001-N10-2	BW-SAFE END	Acceptable 1st Int exam	5-RPV-UTA-085 5-RPV-UTL-005	0.4000	
42	B-J	BIO	50	B13-REV-D001	B13-D001-N10-3	BW-SE EXT	Acceptable 1st Int exam	5-RPV-UTA-085/087/088/089 5-RPV-UTL-006	0.4000	

TABLE 2
EXAMINATIONS ENTERGY REQUESTS TO DEFER

NO.	CAT.	LOC	SYS	LINE NO.	COMPONENT NO.	DESCRIPTION	INSPECTION HISTORY	REPORT NO.	DOSE	COMMENTS
43	B-J	STM	208	MSI-002-014-1	MSS-800A3-FWC12	PIPE WELD	Acceptable 1st Int exam	90-IR-23864	0.4000	
44	B-J	DW	601	WCS-003-312-1	WCS-006B2-XI-FW012	VALVE TO PIPE	Acceptable 1st Int exam	92-IR-26867	0.4600	
45	B-J	DW	204	RHS-010-019-1	RHS-019A-FW008A	PIPE TO VALVE	Acceptable 1st Int exam	4-RHS-UTA-017 4-RHS-UTC-011	0.4800	
46	B-J	BIO	107	FWS-012-036-1	FWS-036A-FW003	PIPE-TO-SAFE END	Acceptable 1st Int exam	2-FWS-UTA-008/009 2-FWS-UTC-009/010	0.5000	
47	B-J	STM	204	RHS-018-053-1	RHS-055A-FW001	PIPE-TO-VALVE	Acceptable 1st Int exam	2-RHS-UTA-007 2-RHS-UTC-007	0.5000	
48	B-J	DW	601	WCS-004-003-1	RCS-900A-SW005BB	BRANCH WELD	First inspection	N/A	0.5400	
49	B-J	DW	204	RHS-010-034-1	RHS-034A-SW011	PIPE TO 135° ELL	Acceptable 1st Int exam	5-RHS-UTA-029 5-RHS-UTA-028	0.5700	
50	B-J	DW	601	WCS-004-001-1	WCS-001A-XI-SW001	PIPE-TO-90° ELL	Acceptable 1st Int exam	4-WCS-UTA-004/005/023 4-WCS-UTC-002	0.6050	

ATTACHMENT 2 TO

RBG-46923

ACTIONS PREVIOUSLY TAKEN BY ENTERGY

RBS-ISI-012

Actions Previously Taken by Entergy

Actions previously taken by Entergy to address weld examination requirements began in 2006 when Entergy personnel met with NRC staff in Washington DC to discuss plans for submitting a relief request to implement a risk-informed ISI program developed using Code Case N-716 criteria. It was understood that applications docketed prior to January 1, 2008, would not be required to meet Regulatory Guide (RG)-1.200 Revision 1 standards. The original Entergy plan was to submit RI-ISI programs for Grand Gulf Nuclear Station (GGNS), Waterford -3 (W3), Arkansas Nuclear One (ANO), and River Bend Station (RBS) sequentially. The discussion below identifies events and actions taken by Entergy to prepare and submit a Code Case N-716 submittal:

On May 17, 2007, RBS received NRC approval of a relief request to delay conventional scope ISI that would be impacted by Code Case N-716. This delay allowed the conventional ISI scope for Examination Categories B-J, C-F-1 and C-F-2 to be moved from RF-14 to RF-15 to facilitate completion and approval of the Code case N-716 submittal.

GGNS submitted a RI ISI plan that was approved on September 21, 2007. This submittal was not required to meet the requirements of RG-1.200 Revision 0 (R0).

In October 2007, the W3 RI ISI plan was submitted without meeting RG 1.200 R0. The submittal was revised to identify and disposition gaps between GGNS N-716 approval and RG1.200 R0. This work scope altered the original schedule to have all Entergy N-716 submittals docketed before January 1, 2008.

In May 2008, the ANO Unit 1 (ANO-1) N-716 application was submitted based on the original flooding study. At that time, RBS was progressing for a similar submittal in late 2008 using the same approach.

In July 2008, ANO-1 withdrew its RI-ISI submittal due to lack of a RG 1.200 R1 compliant gap analysis. RBS consequently revised its plan to submit prior to completion of a gap analysis. The anticipated completion date of the Internal Flood Analysis was estimated to be December 31, 2008, with submittal to follow in mid 2009. With RF-15 planned for mid-2009, NRC approval for RF-15 was not expected at that time.

In September 2008, Hurricane Gustav resulted in a forced outage of 23 days at RBS. Due to the scope of work and need to return the unit to service, resources assigned to the N-716 effort were diverted to other tasks supporting the effort of returning the plant to service. This diversion continued after the immediate plant start-up.

In October 2008, the RBS RF-15 date was moved from May 2009 to Sept 2009. At this time the possibility of completing an N-716 submittal in time for NRC review and approval prior to RF-15 was identified. Schedules to support completion of this submittal were developed and work was accelerated where possible.

In November 2008, RG 1.200 R1 gap analysis for RBS was completed. The initial review of the gaps determined the existence of 72 gaps, 6 of which were later determined to be of potential significance to a RIS_B N-716 application.

In December 2008, the original schedule for the RBS flooding study review was based on the W3 schedule which allowed 15 days total for two rounds of review. The RBS flooding study proved to be significantly more complicated than those of the other Entergy sites. In addition, the RBS plant design is much more compartmentalized than other sites, resulting in significantly more scenarios and PRA quantifications. RBS has approximately twice the number of scenarios and three times the number of quantifications as identified at W3. Completion of this submittal required assignment and contracting of additional resources. Due to the complexity of the RBS design and issues resolving the gaps identified in the RG 1.200 R1 gap analysis, Entergy was unable to accelerate the submittal schedule.

In February 2009, the RG 1.200 R1 Self-Assessment was completed that identified which PRA sensitivity cases must be performed. This determination, in addition to the previously identified complexity of the RBS design details, significantly impacted the scope and schedule of the RBS RIS_B submittal based upon N-716.

ATTACHMENT 3 TO

RBG- 46923

LICENSEE - IDENTIFIED COMMITMENTS

RBS-ISI-012

LICENSEE-IDENTIFIED COMMITMENTS

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
Entergy commits to perform 73 of the 123 remaining second ISI interval examinations during operating cycle/RF-15.	X		prior to startup from RF-15
Remaining examinations from the second ISI interval that would be required under the proposed RIS_B program if approved will be completed by the end of RF-16.	X		prior to startup from RF-16
If <u>not</u> approved, Entergy will perform all 50 of the deferred examinations prior to startup from RF-16. This will complete the second ISI interval inspection requirements.	X		prior to startup from RF-16