



Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775
Tel 225-381-4374

Eric W. Olson
Site Vice President

RBG-47385

August 28, 2013

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: Entergy's First Six-Month Status Report in Response to March 12, 2012
Commission Order Modifying Licenses with Regard to Reliable Spent Fuel
Pool Instrumentation (Order Number EA-12-051)
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

- REFERENCES:
1. NRC Order Number EA-12-051, *Order To Modify Licenses With Regard To Reliable Spent Fuel Pool (SFP) Instrumentation*, dated March 12, 2012 (Agencywide Document Access and Management System (ADAMS) Accession No. ML12054A682) (RBC-51011)
 2. NRC Interim Staff Guidance JLD-ISG-2012-03, *Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation, Revision 0*, dated August 29, 2012 (ML12221A339)
 3. NEI 12-02, *Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation"*, Revision 1, dated August 2012 (ML12240A307)
 4. Entergy's Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated October 24, 2012 (RBG-47303) (ML12312A125)
 5. Entergy letter to NRC, Overall Integrated Plan In Response To March 12, 2012, Commission Order Modifying License With Regard To Reliable SFP Instrumentation (Order Number EA-12-051), dated February 28, 2013 (RBG-47328) (ML13066A509)

Dear Sir or Madam:

On March 12, 2012, the NRC issued an order (Reference 1) to Entergy. Reference 1 was immediately effective and directs Entergy to install reliable spent fuel pool level instrumentation at River Bend Station. Specific requirements are outlined in Attachment 2 of Reference 1.

A001
NRK

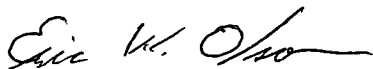
Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 1 also requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. Reference 2 endorses industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the Entergy initial status report regarding spent fuel pool instrumentation. Reference 5 provided the Entergy overall integrated plan.

The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attached report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments. Should you have any questions regarding this submittal, please contact Mr. Joseph Clark, Manager – Licensing, at 225-381-4177.

I declare under penalty of perjury that the foregoing is true and correct; executed on August 28, 2013.

Sincerely,



EWOT/AE/JAC/wjf

Attachment: River Bend Station's (RBS) First Six-Month Status Report for the Implementation of Order EA-12-051, Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

cc: U.S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Blvd.
Arlington, TX 76011-4511

NRC Resident Inspector
R-SB-14

Central Records Clerk
Public Utility Commission of Texas
1701 N. Congress Ave.
Austin, TX 78711-3326

cc: (continued)

Mr. Alan Wang, Project Manager
U.S. Nuclear Regulatory Commission
MS O-8B1
11555 Rockville Pike
Rockville, MD 20852-2738

U. S. Nuclear Regulatory Commission
ATTN: Director, Office of Nuclear Reactor Regulation
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

U. S. Nuclear Regulatory Commission
ATTN: Robert J. Fretz Jr.
Mail Stop OWFN/4A15A
11555 Rockville Pike
Rockville, MD 20852-2378

U. S. Nuclear Regulatory Commission
ATTN: Robert L. Dennig
Mail Stop OWFN/10E1
11555 Rockville Pike
Rockville, MD 20852-2378

Department of Environmental Quality
Office of Environmental Compliance
Radiological Emergency Planning and Response Section
ATTN: JiYoung Wiley
P.O. Box 4312
Baton Rouge, LA 70821-4312

U. S. Nuclear Regulatory Commission
ATTN: Ms. Lisa M. Regner
Mail Stop OWFN/11F1
11555 Rockville Pike
Rockville, MD 20852-2378

U. S. Nuclear Regulatory Commission
ATTN: Mr. Blake A. Purnell
Mail Stop OWFN/12D20
11555 Rockville Pike
Rockville, MD 20852-2378

U. S. Nuclear Regulatory Commission
ATTN: Mr. Steven R. Jones
Mail Stop OWFN/10A1
11555 Rockville Pike
Rockville, MD 20852-2378

Attachment to

RBG-47385

**River Bend Station's (RBS) First Six-Month Status Report for the
Implementation of Order EA-12-051, Order to Modify Licenses with
Regard to Reliable Spent Fuel Pool Instrumentation**

River Bend Station's (RBS) First Six-Month Status Report for the Implementation of Order EA-12-051, Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

1. Introduction

Entergy developed an Overall Integrated Plan (Reference 1 in Section 8) for River Bend Station (RBS), documenting the requirements to install reliable spent fuel pool level instrumentation (SFPI), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2. Milestone Accomplishments

The following milestone(s) have been completed since the development of the Overall Integrated Plan (Reference 1), and are current as of July 31, 2013.

- Although not part of the original milestone schedule, NRC requests for additional information (RAIs) were received July 10, 2013 (Reference 3) and responded to on July 25, 2013 (Reference 4). The response to the RAIs was added to the milestone schedule. Any additional RAI responses will be provided in future six-month status reports as necessary. The status of individual RAIs is indicated in the attached RAI table. The addition of this milestone and target completion date does not impact the Order implementation date.

3. Milestone Schedule Status

The following provides an update to milestone schedule to support the Overall Integrated Plan. This section provides the activity status of each item, and the expected completion date noting any change. The dates are planning dates subject to change as design and implementation details are developed.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Reliable SFPI Installed	Spring 2015 Refueling Outage	In Progress	
Respond to NRC RAIs Dated July 3, 2013 (Reference 3)	July 26, 2013	See RAI Table Below	

4. Changes to Compliance Method

The current Level 2 elevation is now 107'-10 5/16" EI. The previous Level 2 elevation was 10 ft. above the top of the spent fuel rack at 94'-10 5/16" EI. This differs from the conceptual design RBS initially submitted to the NRC. The Level 2 elevation is raised to 107'-10 5/16" to account for non-special nuclear material stored above 94'-10 5/16" in the Spent Fuel Pool.

5. Need for Relief/Relaxation and Basis for the Relief/Relaxation

RBS expects to comply with the order implementation date and no relief/relaxation is required at this time.

6. Open Items from Overall Integrated Plan and Draft Safety Evaluation

None.

7. Potential Draft Safety Evaluation Impacts

The NRC has not yet issued a draft safety evaluation; therefore, there are no potential impacts to the Draft Safety Evaluation identified at this time.

8. References

The following references support the updates to the Overall Integrated Plan described in this attachment.

1. "River Bend Station Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013 (ML13066A509)
2. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012 (ML12054A682)
3. "River Bend Station, Unit 1 – Request for Additional Information Regarding Overall Integrated Plan For Reliable Spent Fuel Pool Instrumentation (Order EA 12-051) (TAC No. MF0953)", dated July 3, 2013 (ML13179A193)
4. "Response to Request for Additional Information (RAI) for the Overall Integrated Plan (OIP) in Response to the Commission Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool (SFP) Instrumentation", dated July 25, 2013 (ML13217A092)

RBS RAI Status

RAI Number	RAI Topic	RAI Status
RAI-1.a	Provide sketch depicting the elevation view of the proposed typical mounting arrangements for portions of the instrument channel consisting of permanent measurement channel equipment. Indicate datum values and points related to Level 1, 2, and 3.	Completed
RAI-1.b	Describe how level 2 will be adjusted to other than the elevation provided in section 2.	Completed
RAI-2	Provide a clearly labeled sketch or marked-up plant drawing of the plan-view of the SFP area, depicting the SFP inside dimensions, the planned locations/placement of primary and back-up SFP level sensors and the proposed routing of the cables.	Open
RAI-3.a	Provide Design Criteria that will be used to estimate total loading on mounting devices. Also describe methodology used to estimate total loading.	Completed
RAI-3.b	Provide description of the manner in which the level sensor will be attached to the refueling floor or other support structures.	Completed
RAI-3.c	Provide a description of the manner by which the mechanical connections will attach the level instrument to permanent SFP structures.	Completed
RAI-4.a	Provide a description of the method(s) intended to be applied to demonstrate the reliability of the permanently installed equipment.	Completed
RAI-4.b	Provide a description of the testing and/or analyses that will be conducted to provide assurance that the equipment will perform reliably under the worst-case credible design basis loading at the location where the equipment will be mounted.	Completed
RAI-4.c	Provide a description of the specific method or combination of methods that will confirm the reliability of the permanently installed equipment following seismic conditions.	Completed
RAI-5.a	Provide a description of how the two channels of the proposed level measurement system meet this requirement so that the potential for a common cause event to adversely affect both channels is minimized to the extent practicable.	Completed
RAI-5.b	Provide further information on how each level measurement system will be designed and installed to address independence.	Completed
RAI-6.a	Provide a description of the electrical AC power sources and capacities for the primary and backup channels.	Completed
RAI-6.b	Provide the design criteria that will be applied to size the battery.	Completed

RAI-7.a	Provide an estimate of the instrument channel accuracy performance.	Completed
RAI-7.b	Provide a description of the methodology determining the maximum allowed deviation from the instrument channel design accuracy.	Completed
RAI-8.a	Provide a description of the capability and provisions the proposed level sensing equipment will have to enable periodic testing and calibration.	Completed
RAI-8.b	Provide a description of how such testing and calibration will enable the conduct of regular channel checks.	Completed
RAI-8.c	Provide a description of how functional checks will be performed and the frequency of which they will be conducted.	Completed
RAI-8.d	Provide a description of what preventative maintenance tasks are required to be performed during normal operation and the planned maximum surveillance interval.	Completed
RAI-9.a	Provide the specific location for the primary and backup instrument channel display.	Completed
RAI-9.b	Since both primary and backup display locations are not in the main control room, please provide a description of the location for the primary and backup display.	Open
RAI-9.c	Provide the reasons justifying why the locations selected will enable the information from these instruments to be considered "promptly accessible."	Completed
RAI-10.a	Provide a list of the operating procedures, calibration/test procedures, maintenance procedures, and inspection procedures.	Completed
RAI-10.b	Provide a brief description of the specific technical objectives to be achieved within each procedure.	Completed
RAI-11.a	Provide further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements.	Completed
RAI-11.b	Provide a description of how the guidance in NEI 12-02 Section 4.3 regarding compensatory actions for one or both non-functioning channels will be addressed.	Completed
RAI-11.c	Provide a description of the compensatory actions to be taken in the event that one of the instrument channels cannot be restored to functional status within 90 days.	Completed