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July 19, 2010

U. S. Nuclear Regulatory Commission
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RBG-47046
RBF1-10-0114

Subject: Reply to a Notice of Violation: EA-10-095
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

Reference: Letter, Neil O'Keefe to Michael Perito, "River Bend Station – NRC Triennial Fire Protection Inspection Report 05000458/2010006 and Notice of Violation," dated June 17, 2010 (ML101690164)

Entergy Operations, Inc. (Entergy) is providing a Reply to Notice of Violation (NOV), EA 10-095, pursuant to the provisions of 10 CFR 2.201. The NOV resulted from a Triennial Fire Protection inspection conducted April 5 through June 2, 2010. Entergy has reviewed Inspection Report (IR) 2010-006 and prepared a reply which is included in Attachment 1 to this letter.

As discussed in Attachment 1, Entergy requests that NRC reconsider the issuance of the NOV. While we agree with the finding related to the fire protection requirements for a main control room fire, we request that the portion of the NOV involving timeliness of corrective actions be re-characterized. We believe that the delay in the corrective action associated with this finding was supported by the following:

- Very low safety significance
- Complex nature of the design modification needed to correct the condition
- Delivery of parts necessary to complete the modification
- Compensatory action taken to mitigate the non-conformance
- Management review of the delay by the plant's Onsite Safety Review Committee

We believe these issues meet the NRC's guidance related to timeliness of corrective actions as specified in section 7.2 of RIS 2005-20.

This letter includes one commitment as described in Attachment 2.

IE01
NRR

Should you have any questions regarding this reply, please contact me at (225) 381-4157.

DNL/krh

Attachments:

1) Reply to a Notice of Violation: EA-10-095 Inspection Report 05000458/2010006-01
2) List of Regulatory Commitments

cc: Regional Administrator
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Mr. Alan Wang, Project Manager
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Attachment 1

RBG-47046

Reply to a Notice of Violation: EA-10-095
Inspection Report 05000458/2010006-01

Attachment 1

Reply to a Notice of Violation: EA-10-095
Inspection Report 05000458/2010006-01

Statement of Violation

License Condition 2.C.(10), "Fire Protection," requires that the licensee comply with the requirements of their fire protection program as specified in Attachment 4. Attachment 4, "Fire Protection Program Requirements," states, in part, that the licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility. The fire protection program requirements are described in section 9.5.1 and appendices 9A and 9B. Section 9B.4.7 specifies, in part, "Fire protection features shall be capable of limiting fire damage so that one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) is free of fire damage."

Contrary to this requirement, in May 2007, the licensee determined that they failed to ensure that one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) was free of fire damage. Specifically, the Division 1 standby service water support system to the Division 1 emergency diesel generator, which was required to achieve safe shutdown, was not protected such that it remained free from fire damage under all conditions. The non-emergency high temperature trips for the emergency diesel generator would be disabled by design when automatically started in emergency mode due to loss of offsite power. Since standby service water could be lost due to fire damage during a control room fire, the emergency diesel generator would continue to run without cooling, and potentially fail prior to operators restoring standby service water at the remote shutdown panel. The licensee failed to promptly restore compliance in the three years since identifying the non-conforming condition, during which time the licensee has completed two refueling outages, six unplanned outages, and a planned system outage of sufficient duration. This condition was entered into the licensee's corrective action program as CR-RBS-2007-2102.

This violation is associated with Green significance determination process finding 05000458/2010006-01.

Reason for the violation, or, if contested, the basis for disputing the violation

The condition is related to a plant design feature that could result in loss of the Division 1 emergency diesel generator (EDG) during a postulated main control room (MCR) fire with loss of offsite power. The design feature involves the EDG control system. The control system bypasses the high temperature trip during a loss of offsite power start. This design could result in loss of the EDG function due to spurious loss of service water system during a MCR fire.

Entergy identified the condition described in the notice of violation, established appropriate compensatory measures, reported the condition to the NRC, evaluated the condition, and scheduled corrective actions to resolve the non-compliance. The corrective actions involved a modification to the control system for the Division 1 EDG that was necessary to restore

compliance with the license basis requirements for shutdown following a main control room fire with a loss of offsite power. The modification was scheduled for November 2009. This date was selected as this was the first planned Divisional I EDG system outage of sufficient duration to complete the modification after the initial identification of the condition on May 21, 2007.

This condition, including the 2009 scheduled completion date for the modification, was reviewed by NRC and documented in NRC Inspection Report (IR) 2009-02 dated May 8, 2009. That IR included a licensee identified non-cited violation (NCV) for the design condition. The IR also documents the very low safety significance of the issue.

Prior to the 2009 EDG outage, engineering work proceeded with the development of a control system modification. On November 5, 2009, RBS Condition Report (CR) 2009-5823 was written to document that the modification to the EDG was in jeopardy of not being implemented as scheduled. The engineering work had not been completed and all parts needed for the modification were not available. In addition to the unavailability of parts needed for the modification, the CR found that the modification had not been completed due to work related to refuel outage 15 and due to quality issues with the modification.

The Onsite Safety Review Committee (OSRC) also reviewed the issue including the risk associated with the delay in the modification. The OSRC minutes noted that the plant is allowed one EDG Extended Allowed Out of Service Time (AOT) (greater than 72 hours) per fuel cycle for a planned outage. The minutes also discussed the enforcement discretion for multiple spurious operations which would allow 36 months from November 2, 2009, to correct the condition. The compensatory action put in place for the non-compliance was also reviewed and determined to be acceptable to ensure availability of the Div. I EDG should a loss of offsite power and Main Control Room fire occur simultaneously. The minutes noted that the modification would not be installed due to not having the required ASME parts. The OSRC concluded that based on the risk involved, it was acceptable to extend the corrective action date to the next refuel outage (currently scheduled for early 2011).

While the modification was not completed at the first available opportunity (November 2009), we believe that the action is timely based on a low safety significance and adequate compensatory measures. We request that the NRC reconsider the following information.

The NOV discusses potential opportunities to correct the condition including two refueling outages and six unplanned outages that occurred after identification of this issue. This information appears to conclude that these outages were appropriate opportunities to correct the condition. While the outage information is correct, these outages were not considered appropriate opportunities to correct the condition by Entergy. A plant outage is not required to complete the modification needed to correct the condition. The modification can be completed on line during a planned EDG maintenance window. The modification could not be completed and added to the scope of the first refuel outage after identification of the issue due to time needed for planning and design work. It was also inappropriate to complete a modification of this type in the unplanned outages due to the complex nature of the control system modification. Planning and scheduling of resources needed for a modification of this type are typically not appropriate for an unplanned outage. While the modification could have been scheduled in the second refuel outage (RF-15), it was determined that the Division 1 EDG system outage that was scheduled shortly after this refuel outage was the appropriate

time to complete the modification. The NRC's use of the two refuel outages and six unplanned outages as justification that the corrective action was untimely does not appear to be justified.

The next Division 1 EDG system outage after identification of the condition was scheduled just after the second refuel outage (RF-15). This was the appropriate maintenance window to include this complex modification. The November 2009 scheduled date was the first planned Divisional I EDG maintenance window of sufficient duration to complete the modification.

RBS Technical Specification Bases Section 3.8.1 provides the following information related to scheduling of planned EDG maintenance outages.

> "... use of the extended AOT for voluntary planned maintenance should be limited to once within an operating cycle (18 months) for each DG (Division I and Division II)."

The November 2009 scheduled maintenance window was the first opportunity for use of the extended AOT for the subject EDG modification.

Regulatory Issue Summary (RIS) 05-20 Section 7.2 provides guidance in determining whether a licensee is making reasonable efforts to complete corrective actions promptly.

> "In determining whether the licensee is making reasonable efforts to complete the corrective actions promptly, the NRC will consider safety significance, the effects on operability, the significance of the degradation, and what is necessary to implement the corrective action. The NRC may also consider the time needed for design, review, approval, or procurement of the repair or modification; the availability of specialized equipment to perform the repair or modification; and whether the plant must be in hot or cold shutdown to implement the actions. If the licensee does not resolve the degraded or nonconforming condition at the first available opportunity or does not appropriately justify a longer completion schedule, the NRC would conclude that corrective action has not been timely and would consider taking enforcement action. Factors that should be considered are (1) the identified cause, including contributing factors and proposed corrective actions, (2) existing conditions and compensatory measures, including the acceptability of the schedule for repair and replacement activities, (3) the basis for why the repair or replacement activities will not be accomplished prior to restart after a planned outage (e.g., additional time is needed to prepare a design/modification package or to procure necessary components), and (4) review and approval of the schedule by appropriate site management and/or oversight organizations."

In this case, the OSRC specifically considered this NRC guidance for extension of the corrective actions to the next maintenance window after November 2009. This justification included risk significance of the condition, application of compensatory measures for the non-compliance, complex design issues, and parts availability for the completion of the modification. The issues impacting the modification schedule were reviewed and approved by the plant's OSRC.

The NRC IR discusses the following points as basis for the untimely action determination.

> "The systems affected by the non-conforming condition and the compensatory measures are systems required to be operable by technical specifications. These systems are also required to be operable to meet License Condition 2.C. (10) and the safe shutdown requirements of the approved fire protection program.
>
> The non-conforming condition was more significant based on the reliance upon manual actions in lieu of automatic functioning, and because compensatory actions were necessary to ensure the operability of affected systems."

The compensatory measure put in place for the non-conforming condition was not needed to ensure Division 1 EDG operability. While the EDG is required to be operable by RBS Technical Specifications, the subject fire protection requirements are not part of those operability requirements.

RBS Technical Specification Bases Section 3.8.1, Applicable Safety Analysis states the following:

> "The initial conditions of DBA [Design Basis Accident] and transient analyses in the USAR, Chapter 6 (Ref. 4) and Chapter 15 (Ref. 5), assume ESF [Engineered Safety Features] systems are OPERABLE. The AC electrical power sources are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that the fuel, Reactor Coolant System (RCS), and containment design limits are not exceeded. These limits are discussed in more detail in the Bases for Section 3.2, Power Distribution Limits; Section 3.4, Reactor Coolant System (RCS); and Section 3.6, Containment Systems.
>
> The OPERABILITY of the AC electrical power sources is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit as discussed in Reference 2. This includes maintaining the onsite or offsite AC sources OPERABLE during accident conditions in the event of:
>
> a. An assumed loss of all offsite power or all onsite AC power; and
> b. A worst case single failure.
>
> AC sources satisfy the requirements of Criterion 3 of the NRC Policy Statement."

The Bases for this Technical Specification do not include License Condition 2.C.(10) nor does it include any of the fire protection requirements specified in Chapter 9 of the USAR. The fire protection features related to the operation of the EDG included in the USAR and License Condition are not considered to be specified safety functions as defined in the RBS Technical Specifications.

The NRC IR states that the compensatory measure is needed to ensure operability of the EDG. The compensatory action put in place for this non-compliance actually removes the EDG from service to ensure that it remains available for use following a MCR fire. If implemented following a MCR fire, the compensatory action actually results in the inoperability of the EDG. This compensatory measure does not support operability of the EDG as defined in the Technical Specifications. For example, surveillance requirements for automatic start and loading of the EDG cannot be met once the EDG is secured as part of the

compensatory measure. The compensatory measure was put in place to address design concerns related to a MCR fire. It was not put in place to support EDG operability. The compensatory action is not a manual action in lieu of an automatic function under the requirements of the RBS Technical Specifications. The compensatory action actually defeats the automatic functions required by the River Bend Station (RBS) Technical Specifications. The RBS Technical Specifications do not require manual start of the EDG nor do they allow manual start for operability. Thus, the compensatory action cannot be considered a manual action in lieu of automatic.

Entergy requests that NRC reconsider the above information and re-characterize the portion of the NOV dealing with timeliness of corrective action.

Corrective steps that have been taken to restore compliance and the results achieved

The condition described in the notice of violation has not been corrected.

Corrective steps that will be taken

The condition described in the notice of violation will be corrected by modification to the Division 1 EDG control system such that the EDG will remain free from fire damage during a main control room fire with a loss of offsite power under the requirements of the fire protection program as described in the current license basis.

Date when full compliance will be achieved

The condition described in the notice of violation will be corrected during the next refueling outage (currently scheduled for early 2011).

Attachment 2
List of Regulatory 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 (If Required)
	One-Time Action	Continuing Compliance	
The condition described in the notice of violation will be corrected by modification to the Division 1 EDG control system such that the EDG will remain free from fire damage during a main control room fire with a loss of offsite power under the requirements of the fire protection program as described in the current license basis. The condition described in the notice of violation will be corrected during the next refueling outage (currently scheduled for early 2011).	X		Refueling Outage 16