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**Rick J. King**  
Director, Nuclear Safety Assurance

February 15, 2007

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

RBG-46653

Subject: Enhancement of the Capability of the Containment Hydrogen Igniters  
River Bend Station, Unit 1  
Docket No. 50-458  
License No. NPF-47

Dear Sir or Madam:

Enhancement of the capability to provide an alternate power supply to the containment hydrogen igniters was identified in NRC Generic Safety Issue (GSI) -189, "Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident." This issue has been the topic of several meetings since 2004 and was discussed most recently at an NRC meeting conducted with nuclear utilities on January 17, 2007. As a result, Entergy has decided to voluntarily enhance the capability of the containment hydrogen igniters at River Bend Nuclear Station (RBS). RBS will address this concern by including a method to supply alternate power to the surviving hydrogen igniter system for beyond design bases events.

The RBS approach includes two alternatives. First, RBS has procedures in place for the Division 3 Diesel Generator cross-tie to the Division 1 or 2 switchgear during station blackout conditions. This provides one alternative for supplying power to one division of the containment hydrogen igniters during the event. As long as the Division 3 Diesel Generator and the applicable switchgear are available, one division of the hydrogen igniters can be energized. Second, if the three permanently installed diesel generators are not capable of supplying power to the hydrogen igniters, a portable generator capable of supplying one division of the hydrogen igniters and cabling to connect the generator with a hydrogen igniter division will be available.

Neither the means of connection nor the connection points with the igniter trains have been finally determined, but efforts will be made to ensure that the connections can be easily made and that the connection points are located in an area that provides a measure of protection for the connections.

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The portable generator will be stored on-site away from the main plant structures. Cabling storage will be in the area of use or at the generator storage location. The portable generator will be capable of being repositioned to facilitate connection to either igniter division. The use of a readily available portable generator capability with connections that can be easily made will enable one division of hydrogen igniters to be placed in service once the need has been determined. The portable power supply will be provided consistent with criteria for mitigation of extreme damage scenarios. These criteria include:

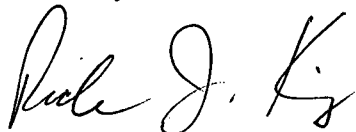
- use of commercially available equipment; it is not subject to any new special treatment requirements under 10 CFR (e.g., Quality Assurance, seismic, Equipment Qualification, etc.)
- no need to consider the potential for equipment to be out of service for routine maintenance activities
- no need to provide redundancy
- strategy to be implemented through guidance or procedures similar in nature to those used to cope with severe accidents
- level of training to be consistent with SAMG-type (Severe Accident Management Guideline) actions
- Prior to the initiating event, the plant systems are assumed to be in a nominal configuration with the reactor at 100% power
- implementation of this strategy is not expected to require extraordinary or heroic actions
- sufficient fuel on-site for the power source to operate for 12 hours without off-site supplies

The Division 3 Diesel Generator cross-tie procedure and associated personnel training is currently available. The procurement of the portable equipment, procedure development, and personnel training on the equipment is expected to be completed by April 2008. Should unforeseen circumstances such as the need for complex plant modifications affect our schedule, RBS will notify the NRC of changes in the completion date.

These actions will provide reasonable assurance that one division of the Hydrogen Igniter System can be powered under certain blackout and beyond design basis scenarios. This capability can extend containment function should significant hydrogen generation occur. These actions are consistent with the industry actions discussed with the NRC staff to resolve the concern with certain beyond design basis extreme damage scenarios and address a method to close GSI-189.

RBS has made commitments in this letter as summarized in Attachment 1. If there are any questions regarding this letter, please contact Mr. David Lorfing at (225) 381-4157.

Sincerely,



Rick J. King

Attachment

cc: Dr. Bruce S. Mallett  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

NRC Senior Resident Inspector  
P. O. Box 1050  
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U.S. Nuclear Regulatory Commission  
Attn: Mr. Bhalchandra K. Vaidya MS O-7D1  
Washington, DC 20555-0001

**Attachment to RBG-46653**

**List of Regulatory Commitments**

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

<b>COMMITMENT</b>	<b>TYPE (Check one)</b>		<b>SCHEDULED COMPLETION DATE (If Required)</b>
	<b>ONE- TIME ACTION</b>	<b>CONTINUING COMPLIANCE</b>	
A portable generator capable of supplying one division of the hydrogen igniters and cabling to connect the generator with the hydrogen igniter division will be available.		X	April 2008
The portable generator will be stored on-site away from the main plant structures and will be capable of being repositioned to facilitate connection to either igniter division.		X	April 2008