



An Exelon Company

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Clinton Power Station  
R. R. 3, Box 228  
Clinton, IL 61727

U-603806  
February 28, 2007

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Clinton Power Station, Unit 1  
Facility Operating License No. NPF-62  
NRC Docket No. 50-461

Subject: Enhancement of the Capability of the Containment Hydrogen Igniters

Enhancement of the capability to provide an alternate power supply to the containment hydrogen igniters was identified in the Nuclear Regulatory Commission (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 subject of several meetings since 2004 and was discussed most recently at a meeting conducted with the NRC and representatives from the affected plants on January 17, 2007. As a result, AmerGen Energy Company, LLC (AmerGen) has decided to enhance the capability of the containment hydrogen igniters at the Clinton Power Station (CPS). AmerGen will address this concern by including a method to supply alternate power to the surviving hydrogen igniter system for beyond design basis events.


As described at the January 17th meeting, the CPS approach includes several available alternatives. First, the preferred option will be to utilize a 12 kilovolt (kV) offsite source to supply either the Division 1 or 2 hydrogen igniter panels. This source is currently used to provide power to the turbine building during plant outages. The second option will be to use a Division 3, 480-volt power supply located in the control building to power the Division 1 or 2 hydrogen igniter panels. The third option will provide a 120-volt power supply to the hydrogen igniters at the containment penetrations in case either of the first two options are not successful. A fourth option will be the use of portable generators that could be connected to a division of igniters at the containment penetrations in the event that none of the other options were determined to be a success path for mitigating an extreme damage event. These alternatives can be readily implemented relatively quickly.

Procedures currently exist to implement the first and third options. For options two and four, the procurement of the portable equipment, procedure development, and personnel training on the equipment is expected to be completed by December 2007. Should unforeseen circumstances, such as the need for complex plant modifications, affect the schedule, AmerGen will notify the NRC of the schedule change.

The above actions will provide reasonable assurance that one division of hydrogen igniters can be powered under certain blackout and beyond design basis scenarios. This capability can extend the containment function should significant hydrogen generation occur. These actions are consistent with the actions discussed with the NRC during the January 17, 2007 meeting to resolve the concern with certain beyond design basis extreme damage scenarios and a method to close GSI-189. As stated above, AmerGen has made commitments in this letter regarding the enhancements of the containment hydrogen igniters. Attachment 1 provides the summary of regulatory commitments contained in this letter.

If there are any questions or if additional information is required, please contact Mr. Kent C. Scott, Regulatory Assurance Manager, at (217) 937-2800.

Respectfully,



Bryan Hanson  
Site Vice President  
Clinton Power Station

Attachment 1 – Summary of Regulatory Commitments

JLP/bif

cc: Regional Administrator, NRC Region III  
NRC Project Manager, NRR, Clinton Power Station  
NRC Senior Resident Inspector, Clinton Power Station

**Attachment 1**  
**U-603806**  
**Summary of Regulatory Commitments**

The following table identifies commitments made in this document. Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.

<b>Commitment</b>	<b>Committed Date or Outage</b>	<b>Commitment Type</b>
Complete procurement of portable equipment, procedure development and training on the use of this portable equipment.	December 2007	One time