

January 10, 2001

Mr. Mike Reandeau  
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Clinton Power Station  
P.O. Box 678  
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Clinton, IL 61727

SUBJECT: CLINTON POWER STATION - CORRECTION TO SAFETY EVALUATION OF  
INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS  
(TAC NO. M83607)

Dear Mr. Reandeau:

By letter dated September 27, 1995, as supplemented April 27, September 29, and December 28, 1998, July 28, 1999, and January 28, 2000, you submitted your individual plant examination of external events (IPEEE). The Nuclear Regulatory Commission (NRC) staff issued its safety evaluation regarding your IPEEE by letter dated December 6, 2000.

There was a minor error in the safety evaluation. The error was "857 MWe" listed on line 2 of Section 2.0 on page 2 of the safety evaluation. The safety evaluation should have stated "985 MWe". Enclosed is a corrected page.

We apologize for any inconvenience that may have resulted from this error.

Sincerely,

**/RA/**

Jon B. Hopkins, Senior Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosure: As stated

cc w/encl: See next page

Mike Reandeau

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DATE	01/10/01		01/10/01		01/10/01	

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In accordance with Supplement 4 to GL 88-20, the licensee provided information to address the resolution of Unresolved Safety Issue (USI) A-45, "Shutdown Decay Heat Removal Requirements," Generic Safety Issue (GSI) #103, "Design for Probable Maximum Precipitation (PMP), GSI-57, "Effects of Fire Protection System Actuation on Safety-Related Equipment," and the Sandia Fire Risk Scoping Study (FRSS) issues. These issues were explicitly requested in Supplement 4 to GL 88-20 and its associated guidance in NUREG-1407. The licensee did not propose to resolve any additional USIs or GSIs as part of the CPS IPEEE.

## 2.0 EVALUATION

CPS is a single unit, General Electric BWR 6 with a Mark III containment. The rated power output is 985 MWe. The plant is located in DeWitt County in central Illinois on Clinton Lake and was issued its full power operating license in May 1986.

For the seismic IPEEE analysis, CPS is categorized as a 0.3g focused-scope plant (per NUREG-1407). The plant seismic design basis earthquake (DBE) is 0.25g for a Safe Shutdown Earthquake (SSE). The plant seismic design inputs were based on Regulatory Guide (RG) 1.60 response spectra anchored at the SSE (0.25g). The licensee used the Electric Power Research Institute (EPRI) Seismic Margins Assessment methodology as described in EPRI NP-6041-SL, with enhancements specified in NUREG-1407. For fire events, the licensee utilized the EPRI Fire Risk Analysis Implementation Guide (FRAIG) methodology, which involved performing a fire probabilistic risk assessment. The licensee evaluated HFO using the progressive screening approach described in NUREG-1407 and GL 88-20, Supplement 4. Since CPS was designed in accordance with the 1975 Standard Review Plan (SRP), the focus of the HFO review was to show conformance with the SRP criteria. The licensee performed walkdowns to confirm that no plant changes had occurred since the plant was licensed that would impact on the IPEEE review.

### Core Damage Frequency Estimates

The licensee did not quantitatively estimate a seismic core damage frequency (CDF) contribution, since a seismic margin assessment was performed. The licensee stated that its seismic margin analysis indicated that the overall high confidence of low probability of failure (HCLPF) plant capacity was equal to, or greater than, the review level earthquake (RLE) value of 0.3g. A quantification for fire events, that utilized the FRAIG methodology, indicated that the contribution to plant CDF from fire was about 4E-6 per reactor-year (RY). The licensee did not quantitatively estimate the CDF contribution from HFO events since these events were screened using the NUREG-1407 screening approach. In its individual plant examination (IPE) submittal, the licensee estimated that the total CDF due to internal events was about 3E-5/RY, including internal flooding.

### Dominant Contributors

As indicated above, the licensee stated that the CPS plant's HCLPF capacity was determined to be equal to, or greater than, the RLE value based on the EPRI NP-6041-SL methodology. However, since HCLPF values were not reported in the licensee's submittal, there is insufficient

Enclosure