

ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

March 14, 1985

Docket No. 50-461  
Director of Nuclear Reactor Regulation  
Attention: Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Clinton Power Station Unit 1  
Emergency Operations Facility  
Power Supply

Dear Mr. Schwencer:

Clinton Power Station (CPS) Emergency Plan Revision 4, Section 3.1.4.7, indicates that all communications, instrumentation, data system equipment, HVAC, and lighting located in the primary Emergency Operations Facility (EOF) and vital to the functioning of the facility will be supplied from the 138kV offsite source to the CPS.

As discussed in CPS Final Safety Analysis Report (FSAR), Sections 8.1.2.1, 8.2.1.1, and 8.2.2, the 138kV offsite power system provides power to CPS by one three-terminal transmission line (see attached sketch). This line connects CPS to the Illinois Power Company (IPC) grid at the South Bloomington and Clinton Route 54 substations. Electrical power can be fed to CPS through this line from South Bloomington or North Decatur (via Clinton Route 54 Substation) or both. The 138kV line from Decatur terminates at a circuit breaker at Clinton Rt 54 Substation, approximately 6.5 miles west of CPS. A circuit switcher is located between the Clinton Plant 138kV line tap and Bloomington Substation. If the Decatur-Bloomington line is faulted, relays will automatically operate the circuit breaker or circuit switcher as necessary to isolate the fault and maintain a 138kV source to the Clinton Plant.

The 138kV line is connected to a 138kV to 12kV transformer, which is in turn connected via circuit breakers to a 12kV above ground/underground loop that encircles the CPS site (see attached sketch). This loop is connected to a 12kV to 480V transformer that provides electrical service to the EOF. The 12kV loop has the ability to be sectionalized to isolate a fault should one occur.

Based on a review of the EOF power supply records, the EOF power supply availability has been as follows:

<u>Year</u>	<u>Availability</u>
1980	99.55%
1981	99.94%
1982	99.88%
1983	99.65%

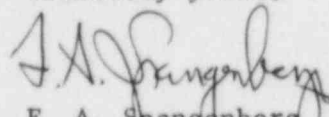
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The Illinois Power Company has designated an area of the company-owned Dispatch Center in Decatur, Illinois, to serve as the back-up to the CPS EOF should the EOF become uninhabitable for any reason, including EOF power failure. The Back-up Emergency Operations Facility (BEOF), which is approximately 21 air miles and a 35 minute drive from the site, is currently being equipped and readied to provide continuation of key EOF functions, for example, offsite dose projections, communications with onsite and offsite personnel and agencies, and decision making.

Based on the above information, IPC believes that the EOF power supply is reliable and meets the requirements of NUREG-0737, Supplement 1. If you should have any questions regarding the EOF power supply, please contact me.

Sincerely yours,



F. A. Spangenberg  
Director - Nuclear Licensing  
and Configuration  
Nuclear Station Engineering

TLG/lr

cc: B.L. Siegel, NRC Clinton Licensing Project Manager  
NRC Resident Office  
Regional Administrator, Region III, USNRC  
Illinois Department of Nuclear Safety

# 138KV OFFSITE POWER SYSTEM

Attachment

