

ILLINOIS POWER COMPANY



U-0481

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500 SOUTH 27TH STREET, DECATUR, ILLINOIS 62525

May 17, 1982

Mr. James R. Miller, Chief  
Standardization & Special Projects Branch  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Miller:

Clinton Power Station Unit 1  
Docket No. 50-461

Our December 1, 1981 (U-0355) letter to you summarized the results of our review of the NSSS ESF systems in response to IE Bulletin 80-06. The review of the BOP ESF systems has now been completed. The attachment is an update of the earlier submittal to incorporate the results of the BOP review. We now consider this SER outstanding issue #12 as closed.

Sincerely,

G. E. Wuller  
Supervisor - Licensing  
Nuclear Station Engineering

GEW/lt

cc: J. H. Williams, NRC Clinton Project Manager  
H. H. Livermore, NRC Resident Inspector  
Illinois Dept. of Nuclear Safety

13001  
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Illinois Power Company  
Clinton Power Station Unit 1

May 17, 1982

SER Outstanding Issue #12

Engineered safety feature reset controls (IE Bulletin 80-06)  
(7.3.3.7)

Issue:

Automatic reset of safety systems logic following the return to normal of the initiating signal must be reviewed in accordance with IE Bulletin 80-06.

Resr

A review of system schematic level drawings of Engineered Safeguard Feature (ESF) functions NSSS and BOP was performed to determine their compliance to IE bulletin 80-06.

The conclusions of this review are as follows:

1. BWR's do not have an "emergency mode" per se. For clarification purposes an "emergency mode" is considered to be an abnormal plant condition in this review.
2. No initiating logic will automatically reset upon the return of the initiating signal to normal. A "seal" is provided on all initiating logic.
3. A manually operated system level reset cannot occur unless the cause of the initiation has been cleared. A deliberate operator action is required to accomplish manual system level reset.
4. Upon a deliberate operator initiated system level manual reset, each system status is as follows:

a. HPCS

All actuated equipments remain in their abnormal condition (e.g., HPCS pump running, injection valve open). A manual operator action at the component level is required to change state of the actuated equipments.

a(1) HPCS Diesel Generator

A system level reset of the ESF actuation signal will not shut down the diesel generator. A manual operator action is required to shut the engine off.

However a system level reset does restore all of the protective trips provided for diesel generator protection (i.e., high jacket water temp, low lube oil press. reverse power, loss of excitation, overcurrent) which are blocked during an abnormal condition. If any of these protective trips are present at the time of system level reset, the diesel generator will trip and a lockout will occur.

Response (cont'd.)

- b. LPCS  
All actuated equipment remain in their abnormal condition. A component level operator action is required to change state of actuated equipments.
  - c. ADS  
All actuated valves (air operated) return to their normal condition hence changing state. All ADS solenoids de-energize in its own division, closing the ADS valves.
  - d. SRV  
All actuated equipment remain in their abnormal condition.
  - e. RHR  
All actuated equipment remain in their abnormal condition (e.g. pumps, injection valves, etc.) They have to manually signalled closed at the component level.
  - f. RCIC  
All actuated equipment remain in their abnormal condition. The inboard/outboard isolation valves and the pump suction valve from the suppression pool are exceptions to this.
  - g. MSIV  
All MSIV remain in their abnormal condition (i.e., closed). A manual operator action is required for each valve to change its state.
5. BOP ESF  
All BOP ESF actuation signals incorporate a "seal-in" feature which prevents the actuation signal from being reset until the condition which caused the actuation has returned to normal. Therefore, an ESF actuation reset by itself will not cause any equipment to revert to a condition or mode not required by the ESF actuation. Equipment which has a prescribed mode during normal conditions may revert to this mode upon the ESF actuation condition returning to normal and the ESF actuation signal being reset.