

Illinois Power Company

U-0630
L30-83(04-05)-L

500 SOUTH 27TH STREET, P. O. BOX 511, DECATUR, ILLINOIS 62525-1805

Docket No. 50-461

April 5, 1983

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

Subject: Clinton Power Station Unit #1
Safe Shutdown Analysis

- References:
- 1) Clinton Power Station Unit #1 meeting on site (7/13/82); participants: Mr. Nick Fioravante and Illinois Power representatives.
 - 2) Clinton Power Station Unit #1 Safe Shutdown Analysis Report; U-0586 12/16/82.
 - 3) Joint telephone conversation among Mr. Nick Fioravante of NRC and Illinois Power representatives.

In accordance with conversations held with Mr. Nick Fioravante of NRC (references 1 and 3), Illinois Power is providing supplemental information to its Safe Shutdown Analysis Report, reference (2):

Page 2: A revised Table of Contents including section 1.6, "High Pressure/Low Pressure Interface Valves," (HP/LP) is attached.

Pages 10 and 10a: The attached new section 1.6 describes the HP/LP interface valves of concern. The Clinton Plant's operation staff has agreed to develop procedures in accommodating the section 1.6 actions.

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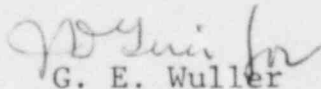
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Page 13: A recent analysis was conducted to determine if the RCIC equipment in fire zone A.1.4 is qualified for 72 hours following a fire in zone A.1.1. That analysis was confirming and is reflected in the revised page 13 (attached).

Page 47: A footnote was added to page 47 indicating that a dedicated spool of control wire (about 1300' minimum) will be stored on site in a specific location strictly for the replacement of Division II control wiring in the event of a fire in zone A.4.6. The Clinton plant's maintenance staff has agreed to this action and to the development of its required procedures.

We trust that these latest revisions to our Safe Shutdown Analysis meet with NRC approval.

Sincerely,



G. E. Waller
Supervisor - Licensing
Nuclear Station Engineering

RWW/lte

cc: Dr. H. Abelson, NRC Clinton Project Manager
Mr. J. E. Stang, Jr., NRC CEB
Mr. H. H. Livermore, NRC Resident Inspector
Illinois Department of Nuclear Safety

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all cables are IEEE 383 rated cables and will not allow significant propagation beyond the impingement of the flame source.

1.6 High Pressure/Low Pressure Interface Valves

There are only 6 valves that could be opened by a hot short in the control circuits in the event of a fire. They are:

1E12-F008	1E12-F052A	1E12-F087A
1E12-F009	1E12-F052B	1E12-F087B

1.6.1 Valves 1E12-F008 and 1E12-F009 are installed in series. In order to prevent the spurious operation of valve 1E12-F008 in the event of a short, the breaker to valve 1E12-F008 will be locked open.

1.6.2 To prevent a short from opening valves 1E12-F052A and B, the power to these control circuits will be controlled by two switches (Division 1 & 2) in the main control room. Each division switch will be in the OFF position as long as the RCIC system is not in the steam condensing mode. When a valve (1E12-F052A or B) needs to be opened, the circuit will be activated by changing the position of its division switch and then, sequentially, the control switch for that valve will be positioned for the desired valve motion. Because the circuit is not

1.6.2 (continued)

activated, indiscriminant valve opening will not be possible.

1.6.3 Hot shorts might occur in the control circuits for valves 1E12-F087A and B in the event of a fire; however, each valve is in series with valves 1E12-F052A and B, respectively.

qualified to function for 72 hours following the loss of the RCIC room (fire zone A.1.4) HVAC system and in the environment that will be present following a fire in zone A.1.1. (It should be noted that the parameters for equipment qualification in zone A.1.4 are more severe for the high energy line break.) Therefore, even with the loss of the supply fan, cold shutdown could be achieved using the Division 1 systems.

Also present in this zone are Division 1 and 2 cable trays. These trays are separated by a 3-hour fire barrier (see the Fire Protection Report figure FP-8). The fire barrier is a concrete cantilever (a horizontal barrier). The Division 2 trays have been installed so that the outer edge of the tray is flush with the outer edge of the cantilever. Therefore, in the unlikely event of a fire in this zone at least one method to bring the reactor to cold shutdown would be available. The performance goals for safe shutdown functions (Appendix R, Section III L) are assured by the systems listed below:

<u>Performance Goal</u>	<u>System Which Meets Goal</u>
1. Reactor coolant makeup	RCIC (Div. 1) or LPCI (Div. 2)
2. Reactor pressure control	SRV (Div. 1) or ADS (Div. 2)
3. Suppression pool cooling	RHR A (Div. 1) or RHR (Div. 2)
4. Process variable indication	Division 1 or 2 instrumentation for:

c. Conclusions

Division 2 RHR system cables service valves necessary for safe shutdown by method #2. A fire in this zone would result in the loss of shutdown method #1 systems and the RHR B system of method #2. Also, routed through this zone are the intake and exhaust ducts that provide cool air to the Division 2 switchgear room. A fire could result in a loss of cool air flow to the switchgear room making it difficult to shutdown the reactor via method #2 (see Section 1.3).

For a description of modifications necessary to satisfy the requirements of Appendix R see part d below and Section 3.

d. Modifications

The Division 2 RHR valves need to be operated to bring the plant to cold shutdown only. Therefore, after hot shutdown has been achieved repairs* can be made to the Division 2 cables to allow proceeding to cold shutdown. Division 2 ventilation ducts will be surrounded with a fibrous insulating material produced by Transco, Inc., which will provide a 3-hour fire barrier. Also all of the ductwork hangers and associated structural steel will be fireproof to withstand a 3-hour fire. Therefore, all of the Division 2 systems necessary to bring the plant to cold shutdown will function.

ASTM fire tests with air flowing inside the ducts will

*A spool of control wire (about 1300 ft. minimum) will be labeled and stored specifically for Division II control wire replacement in this zone.