

ILLINOIS POWER COMPANY



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

DPH-0118-89
March 2, 1989

Docket No. 50-461

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Clinton Power Station
Response to NRC Bulletin No. 88-07, Supplement 1

Dear Sir:

The purpose of this letter is to respond to NRC Bulletin No. 88-07, Supplement 1: Power Oscillations in Boiling Water Reactors (BWRs). This supplement provided additional information concerning power oscillations in BWRs and requested that addressees take certain actions to ensure that the safety limit for the plant minimum critical power ratio is not violated. Illinois Power Company's response to these actions is provided in the attachment.

Clinton Power Station has implemented the actions described in the attachment to help ensure that flow instabilities do not occur.

I hereby affirm that the information in this letter is correct to the best of my knowledge.

Sincerely yours,

D. P. Hall
Vice President

DPH/krm

Attachment

cc: NRC Resident Office
NRC Region III, Regional Administrator
NRC Clinton Licensing Project Manager
Illinois Department of Nuclear Safety

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11

STATE OF ILLINOIS
COUNTY OF DEWITT


DONALD P. HALL, being first duly sworn, deposes and says: I am Vice President of Illinois Power Company (IP). The information provided in the Attachment to this letter dated March 2nd, 1989, Subject: Clinton Power Station Response to Bulletin 88-07, Supplement 1, was prepared under my supervision and direction. I know the contents thereof, and to the best of my knowledge and belief the facts contained therein are true and correct.



Donald P. Hall

Dated: March 2, 1989

Subscribed and sworn to
before me this 2nd
day of March 1989


Notary Public

My Commission Expires:



Attachment

Responses to Actions Requested in Bulletin 88-07, Supplement 1

Action (1): Within 30 days of receipt of this supplement, all BWR licensees should implement the GE interim stability recommendations described in Attachment 1 (of the supplement). However, for those plants that do not have effective automatic scram protection in the event of regional oscillations, a manual scram should be initiated under all operating conditions when two recirculation pumps trip (or "no pumps operating") with the reactor in the RUN mode.

Response: The Clinton Power Station has implemented the GE interim stability recommendations described in Attachment 1 to the supplement through appropriate procedure revisions. Illinois Power Company (IP) has chosen to implement these recommendations by precluding power operation in regions A, B and C. Clinton Power Station operating procedures have been revised to scram the plant under 2 pump trip or under flow conditions below 45% flow and above the 80% rod line. These measures will ensure that the Clinton reactor does not enter the unstable flow regions identified in the recommendations.

Action (2): The boundaries of Regions A, B and C shown in Figure 1 of the GE recommendations (Attachment 1) were derived for those BWRs using NRC approved GE fuel. For BWRs using fuel supplied by other vendors, these regions should be adopted in principle, but the power/flow boundaries should be based on existing boundaries that have been previously approved by the NRC. For proposed new fuel designs, the stability boundaries should be reevaluated and justified based on any applicable operating experience, calculated changes in core decay ratio using NRC approved methodology, and/or core decay ratio measurements. There should be a high degree of assurance that instabilities will not occur under any circumstances of operation in Region C.

Response: Clinton Power Station uses NRC approved GE fuel, therefore, no action is required.

Action (3): The BWROG recommendations of Attachment 1 are ambiguous with respect to permissible conditions for entry of Regions B and C. Although the recommendations state that intentional operation in Region B is not permitted and operation in Region C is permitted only for purposes of fuel conditioning during rod withdrawal startup operations, intentional entry into Region B or C is also allowable in situations where rod insertion or a flow increase is required by procedures to exit Regions A and B after unintentional entry. Licensees should ensure that the procedures and training employed for implementation of these recommendations avoid any similar ambiguity which could lead to operator confusion.

Response: To preclude any ambiguity in understanding and implementing the GE recommendations, IP has chosen to preclude power operation in Regions A, B and C. This change has been incorporated in Clinton Power Station operating procedures and training has been put in place to ensure that operating personnel are made fully aware of the change.