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ILLINOIS POWER COMPANY



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

DPH-0430-88
May 6, 1988

Docket No. 50-461

Mr. A. B. Davis
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137


Subject: Clinton Power Station
Response to NRC Bulletin No. 85-03

Dear Mr. Davis:

This letter is in response to the Nuclear Regulatory Commission's (NRC) letter of March 25, 1988, pertaining to NRC Bulletin No. 85-03, "Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings." Attached is the additional information requested from Illinois Power Company.

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 Clinton Licensing Project Manager
NRC Resident Inspector
NRC Document Control Desk
Illinois Department of Nuclear Safety

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ATTACHMENT

The following is Illinois Power Company's (IP) response to the NRC's request for additional information regarding our previous responses to IE Bulletin 85-03:

Question

1. If MOVATS is planned for application to some MOVs which are not included in its data base, commit to and describe an alternate method for determining the extra thrust necessary to overcome pressure differentials for these valves.

Response

The MOVATS Motor Operated Valve (MOV) data base has not been used as a source for thrust values required to open and close MOV's. Instead, the thrust values used at Clinton Power Station (CPS) were supplied by the valve manufacturers and are considered as an integral part of the manufacturers' design. Valve application descriptions (data sheets) compiled by the architect engineer were provided to the manufacturers in the purchase contract for design development. These data sheets provided pressure differential requirements which included accident, pipe break (as applicable), and emergency considerations. Therefore, a commitment to an alternate method for determining thrust is not necessary.

Question

2. Referring to the response to Action Item c in Attachment A of the response dated 09-10-86, note that "this bypass circuit ensures the minimum valve operator output is available to stroke the valve during normal operation conditions." Explain how sufficient output is ensured for stroking during abnormal events as well, as required by Action Item a of the bulletin. This explanation should include evaluation of possible problems associated with motor/actuator sizing to ensure operation during an abnormal event.

Response

Actuator and motor sizing was performed by the valve manufacturers according to requirements which included accident and emergency considerations as described above. The following is a clarification of the September 10, 1986, response to action item C: MOV's with safety related functions contain a breaker overload bypass circuit and torque switch bypass circuits. The torque switch bypass circuits are controlled by limit switches which are mechanically driven by the operator and set as described in the September 10, 1986, response to action item B. The breaker overload bypass circuit can be defeated from the control room by moving the applicable MOV control switch from "Normal" to "Test" position. The "Test" position is only used

when performing operator maintenance or at other times when it is desirable to operate the valve with breaker overload protection to prevent possible equipment damage. Switch position is administratively controlled by the Technical Specifications. These bypass circuits ensure the maximum valve operator output availability during normal and emergency plant conditions by overriding equipment protection devices.

Question

3a) Commitment to a training program for setting switches, maintaining valve operators, using signature testing equipment and interpreting signatures.

Response

CPS trains personnel involved in MOV maintenance (including switch adjustment), testing and test analysis. CPS considers this training program to be adequate, and it will be continued.

Question

3b) Commitment to justify continued operation of a valve determined to be inoperable.

Response

Valve operability and operational impact of the valves addressed in this bulletin are administratively controlled by the Technical Specifications. Inoperable valves are reviewed and the Technical Specification required actions are taken.

Question

3c) Description of a method possibly needed to extrapolate valve stem thrust determined by testing at less than maximum differential pressure.

Response

Testing at differential pressures greater than maximum was performed for all but one valve for which an exemption to testing was requested. Therefore, a method to extrapolate valve stem thrust from less than maximum differential testing is not required.

Question

3d) Consideration of pipe break conditions as required by the bulletin.

Response

Pipe break considerations were included in the design requirements imposed on the manufacturers at the time of purchase. This is discussed in the response to question 1.