

07 APR 1988

Docket Nos. 50-272  
50-311  
50-354

Public Service Electric & Gas Company  
ATTN: Mr. Steven E. Miltenberger  
Vice President and  
Chief Nuclear Officer  
Post Office Box 236  
Hancocks Bridge, New Jersey 08038

Gentlemen:

Subject: Motor-Operated Valve (MOV) Switch Settings, IE Bulletin (IEB) 85-03--  
Request for Additional Information

Based on our review of your responses, dated May 27, 1986 to the subject Bulletin, NRC staff has determined that additional information is needed to allow NRC to complete its review of your IEB 85-03 program. Accordingly, please submit the information requested in enclosure 1 and 2 for Hope Creek and Salem, respectively within thirty days. In submitting your response, please use your normal procedures for correspondence to NRC, but also add Mr. R. J. Kiessel, (NRC:NRR Generic Communication Branch, Washington, D.C. 20555) to the distribution.

Your cooperation is appreciated.

Sincerely,

**Official Signed By:**

E. C. Wenzinger, Chief  
Projects Branch No. 2  
Division of Reactor Projects

Enclosure:  
Request for Additional Information, Salem and Hope Creek

cc w/encl:  
S. LaBruna, General Manager, Hope Creek Operations  
W. H. Hirst, Manager, Joint Generation Projects Department, Atlantic  
Electric Company  
L. A. Reiter, General Manager - Licensing and Reliability, Hope Creek  
J. Zupko, Jr., General Manager, Salem Operations  
B. Preston, Manager, Licensing and Regulation, Salem  
Rebecca A. Green, Bureau of Radiation Protection  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspectors, Salem and Hope Creek  
State of New Jersey

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PDR ADOCK 05000272  
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**07 APR 1988**

bcc w/encl:  
Region I Docket Room (with concurrences)  
Management Assistant, DRMA (w/o encl)  
DRP Section Chief  
Robert J. Bores, DRSS  
R. Kiessel, NRR/OGCB (w/o encl.)  
G. Rivenbark, NRR, Project Manager (w/o encl.)  
D. Fischer, NRR, Project Manager (w/o encl.)

*fk*  
RI:DRP  
Kelley/rhl  
4/6/88

*psf*  
RI:DRP  
Swetland  
4/7/88

*[Signature]*  
RI:DRP  
Weisinger  
4/7/88

FEB 23 1988

## REQUEST FOR ADDITIONAL INFORMATION (RAI) RE:

Review of Responses to Action Item e of IE Bulletin 85-03

Licensee: Unit(s): Salem 1,2  
Public Service Electric and Gas Co. Date of Response: 05-27-86  
P. O. Box 236  
Hancocks Bridge, N. J. 08038 Respondent:  
Corbin A. McNeill, Jr.,  
Vice President-Nuclear

The information provided in your response to Action Item e of IE Bulletin 85-03 was found to be deficient in some areas. Provide the additional information necessary to resolve the following comments and questions:

1. Has water hammer due to valve closure been considered in the determination of pressure differentials? If not, explain.
2. 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.
3. MOVs 1SJ30, 11SJ33, 12SJ33, 1SJ67, 1SJ68, 11SJ134, 12SJ134, and 1SJ135 of the HPSI System are not listed in the response of 05-27-86. However, similar suction, miniflow and discharge valves 8806A, 8923A, 8923B, 8814A, 8814B, 8821A, 8821B, and 8835 are identified on Page 25 of the WOG Report of March 1986. Revise the response of 05-27-86 to include these MOVs, or justify their exclusion. As required by Action Item a of the bulletin, assume inadvertent equipment operations.

Note: Similarly located valves are used for Unit 2 also.

4. Revise Page 2 of Attachment 1 of the response dated 05-27-86 to include values of differential pressure for both opening and closing the MOVs, as required by Action Item a of the bulletin.
5. The proposed program for action items b, c and d of the bulletin is incomplete. Provide the following details as a minimum:
  - (a) commitment to a training program for setting switches, maintaining valve operators, using signature testing equipment and interpreting signatures, and
  - (b) consideration of pipe break conditions as required by the bulletin.

## REQUEST FOR ADDITIONAL INFORMATION (RAI) RE:

Review of Responses to Action Item e of IE Bulletin 85-03

Licensee:  
Public Service Electric and Gas Co.  
P. O. Box 236  
Hancocks Bridge, NJ 08038

Unit(s): Hope Creek 1  
Date of Response: 05-27-86

Respondent:  
Corbin A. McNeill, Jr.,  
Vice President Nuclear

The information provided in your response to Action Item e of IE Bulletin 85-03 was found to be deficient in some areas. Provide the additional information necessary to resolve the following comments and questions:

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.
2. Revise Table 1 of the response dated 05-27-86 to include the following MOVs, or justify their exclusion. As required by Action Item a of the bulletin, assume inadvertent equipment operations.
  - (a) HPCI MOV V005 is shown normally open in Zone E-3 of Drawing M-55-1 Revision 20, and as MOV 3 on Page 68 of the BWROG Report NEDC-31322 dated September 1986. How would suction from the CST be ensured if this MOV were to be (a) actuated inadvertently to the closed position upon intended initiation of the system or (b) left closed inadvertently?
  - (b) RCIC MOV V001 is shown normally open in Zone F-3 of Drawing M-49-1 Revision 14, and as MOV 3 on Page 72 of the BWROG Report. The question in Item 2(a) above applies here also.
  - (c) HPCI MOV FD-V006 is shown normally open in Zone C-7 of Drawing M-55-1 Revision 20, and as MOV VI on Page 71 of the BWROG Report. How would steam exhaust from the HPCI Turbine to the suppression pool be ensured if this MOV were to be (a) actuated inadvertently to the closed position upon intended initiation of the system or (b) left closed inadvertently?
  - (d) RCIC MOV FC-V005 is shown normally open in Zone C-6 of Drawing M-49-1 Revision 14, and as MOV VI on Page 74 of the BWROG Report. The question in Item 2(c) above also applies to exhaust from the RCIC Turbine.

- (e) RCIC MOV V022 is shown normally open in Zone E-3 of Drawing M-50-1 Revision 16, and as MOV X on Page 74 of the BWROG Report. How would steam supply to the RCIC Turbine be ensured if this MOV were to be operated inadvertently as described in Item 2(a) above?
3. Revise Table 1 of the response dated 05-27-86 to include the following MOVs, or justify their exclusion. Note that they have safety actions for both opening and closing.
- (a) HPCI MOV V009 is shown normally closed in Zone A-7 of Drawing M-55-1 Revision 20, and as MOV 4 on Page 68 of the BWROG Report. Both opening and closing are safety actions, per Page 55.
- (b) RCIC MOV V003 is shown normally closed in Zone B-7 of Drawing M-49-1 Revision 14, and as MOV 4 on Page 72 of the BWROG Report. Both opening and closing are safety actions, per Page 59.
- (c) HPCI MOV BJ-V028 is shown normally closed in Zone C-5 of Drawing M-56-1 Revision 13, and as MOV 9 on Page 68 of the BWROG Report. Both opening and closing are safety actions, per Page 56 and note (f) on Page 66.
- (d) RCIC MOV BD-V022 is shown normally closed in Zone D-6 of Drawing M-50-1 Revision 16, and as MOV 9 on Page 72 of the BWROG Report. Both opening and closing are safety actions, per Page 60 and note (f) on Page 66.
4. Revise Table 1 of the response dated 05-25-86 to include the following MOVs, or justify their exclusion. Note that each has a safety action for either opening or closing.
- (a) RCIC MOV FC-V011 is shown normally open in Zone B-6 of Drawing M-49-1 Revision 14, and as MOV 7 on Page 72 of the BWROG Report. Per Page 59, opening is a safety action.
- (b) HPCI MOV FD-V051 is shown normally closed in Zone F-6 of Drawing M-55-1 Revision 20, and as MOV IV on Page 71 of the BWROG Report. Per Page 57, closing is a safety action.
- (c) HPCI MOVs FD-V007 and FD-V010 are shown normally open in zones C-7 and C-8 of Drawing M-56-1 Revision 13, and as MOVs VII and VIII on Page 70 of the BWROG Report. Per Page 58, closing is a safety action.
- (d) RCIC MOVs FC-V006 and FC-V007 are shown normally open in zones C-7 and C-8 of Drawing M-49-1 Revision 14, and as MOVs VII and VIII on Page 74 of the BWROG Report. Per Page 62, closing is a safety action.

5. Revise Table 1 of the response dated 05-27-86 to include the following MOVs, or justify their exclusion. According to pages 55 and 60 of the BWROG Report (for HPCI and RCIC respectively), these valves have no safety action; however, utilities are expected to report differential pressures for testing, per Note o on Page 66.
  - (a) HPCI MOVs V010 and V004 are shown normally closed in zones E-5 and F-5 of Drawing M-55-1 Revision 20, and as MOVs 5 and 6 on Page 68 of the BWROG Report.
  - (b) RCIC MOV V012 is shown normally closed in Zone E-5 of Drawing M-49-1 Revision 14, and as MOV 5 on Page 72 of the BWROG Report.
6. The proposed program for action items b, c and d of the bulletin is incomplete. Provide the following details as a minimum:
  - (a) commitment to a training program for setting switches, maintaining valve operators, using signature testing equipment and interpreting signatures,
  - (b) description of a method possibly needed to extrapolate valve stem thrust determined by testing at less than maximum differential pressure, and
  - (c) consideration of pipe break conditions as required by the bulletin.

FEB 23 1988

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4. Revise Page 2 of Attachment 1 of the response dated 05-27-86 to include values of differential pressure for both opening and closing the MOVs, as required by Action Item a of the bulletin.
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