



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 9, 1988

Docket No. 50-354

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

Dear Mr. Miltenberger:

SUBJECT: IST PROGRAM REVIEW (TAC NO. 65730)

Re: HOPE CREEK GENERATING STATION

On June 29 and 30, 1988, a meeting was held at the Hope Creek Generating Station site with Public Service Electric and Gas Company, NRC, and EG&G Idaho, Inc., representatives to discuss the questions resulting from the review of the Hope Creek Generating Station pump and valve inservice testing (IST) program. Enclosed are the questions that served as an agenda for the meeting and the responses to these questions as taken from the meeting minutes.

As indicated in the responses to the questions PSE&G agreed to make corrections or changes to a number of items in its IST Program. As noted in the enclosure one licensee and two NRC items remained open following the meeting.

The staff positions with respect to the NRC items are as follows:

1. Modified Check Valves - In HCGS IST program Relief Request No. V-18 for 18 Modified Check Valves, the licensee asked for relief from the ASME Code (the Code) Section XI, IWV 3522(b) to measure torque or force when a valve is tested with a manual mechanical exerciser. The licensee has not demonstrated that the Code requirements are impractical or burdensome and the staff does not believe that they are. Therefore, it is the NRC staff's position that torque or force must be measured and compared to an acceptance criterion when the licensee is using a manual mechanical exerciser to test the valves.
2. Standby Liquid Control System Check Valves and Pumps - The licensee stated in the program that Check Valves 1-BH-V004 and V-005, and pumps 1-BH-AP-208A & B will be tested on a Cold-Shutdown and Refueling Outage frequency. In addition, the licensee stated during the June 29 and 30, 1988, IST meeting that testing of these pumps and valves during power operation would remove one train for a long period of time, causing conflicts with the Technical Specifications (TS) and the Final Safety Analysis Report (FSAR). The staff has reviewed the HCGS-UFSAR, Revision 0, dated April 11, 1988, Section

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9.3.5.3 entitled Safety Evaluation and Section 9.3.5.4 entitled Testing and Inspection Requirements, and TS 3/4.1.5 Standby Liquid Control System LCOs (3.1.5) and Surveillance Requirements (4.1.5). These documents indicated that the system could be tested at power without causing conflicts with either the TS or the FSAR. The licensee has not demonstrated the impracticality and/or burden if the Code was imposed, and it is the NRC staff's position that the licensee test the pumps and valves quarterly as required by the Code.

You are requested to revise the Hope Creek IST program, within 90 days of receipt of this letter, to reflect the changes as discussed at the June 29 and 30, 1988 meeting and to address the three open items.

Sincerely,

/S/

George Rivenbark, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated above

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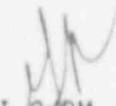
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(fr) W R Butler

George Rivenbark, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated above

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Public Service Electric & Gas Co.

Hope Creek Generating Station

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ENCLOSURE
HOPE CREEK GENERATING STATION
PUMP AND VALVE INSERVICE TESTING PROGRAM
QUESTIONS AND COMMENTS

1. VALVE TESTING PROGRAM

A. General Questions and Comments

1. Cold shutdown testing of valves identified by the licensee is acceptable when the licensee commits to commence testing as soon as the cold shutdown condition is achieved, but not later than 48 hours after shutdown, and continue until complete or the plant is ready to return to power. (See Generic Valve Relief Request No. 1.)

Response:

The licensee will rewrite Generic Valve Relief Request #1 to incorporate that cold shutdown testing will begin within 48 hours after cold shutdown has been achieved and testing will continue until the start of Condition 2 (leaving cold shutdown). The relief request will also reflect that testing will begin where the last cold shutdown testing ended in the case of sequential short duration cold shutdowns.

2. The Code permits valves to be exercised during cold shutdowns where it is not practical to exercise them during plant operation providing those valves are specifically identified by the licensee and are full-stroke exercised during cold shutdowns. The NRC Staff requires that the licensee provide a detailed technical justification for each valve that cannot be exercised quarterly that clearly explains the hazards involved (such as endangering personnel, equipment damage, or resulting in a plant trip) that would be encountered during that testing. The Staff will then verify that it is not practical to exercise these

valves and that the testing should be performed during cold shutdowns.

Response:

Licensee will evaluate the IST program and incorporate cold shutdown justifications into the program to be submitted to the NRC for review.

3. Provide a listing of the limiting values of full-stroke time for all power operated valves in the Hope Creek IST program for our review.

Response:

Licensee provided, as additional information, samples of implementation procedures and administration procedure SA-AP.ZZ-027Q to indicate how valve timing is established and tracked. Procedures were reviewed on site at the meeting and found acceptable.

4. Provide a list of all valves that are Appendix J, Type C, leak rate tested and that are not included in the Hope Creek IST program and categorized "A" or "A/C".

Response:

Licensee stated that all valves which are Appendix J, Type C, leak rate tested, are categorized A or A/C and included in the IST program. The licensee will consider submitting a relief request from the trending requirements of IWV-3426 along with a detailed technical justification for the relief.

5. Relief requests and cold shutdown justifications that reference the FSAR, Technical Specifications, and other documents should be expanded to provide a brief discussion of the applicable technical information contained in the referenced document. (See Relief Request V-06)

Response:

The licensee will re-evaluate each relief request to remove subjective wording and add technical information from the referenced document that clearly demonstrates the impracticality of performing the testing as required.

6. Excess flow check valves should be included in the IST program as Category A/C valves and tested in accordance with Section XI to the extent practical.

Response:

If the licensee categorizes the excess flow check valves A/C, the Jurisdiction (State of New Jersey) will hold them to a specific leak rate limit not required by the Staff. The licensee will rewrite relief request V-06 to justify why the excess flow check valves will remain Category C.

7. Category A, passive, valves should be identified in the IST program.

Response:

The licensee will indicate in the IST program each valve that is categorized A and is passive by noting such in the remarks section of the valve tables.

8. The IST program should include the required safety position and clearly identify the testing frequency of each valve.

Response:

The licensee stated the program procedures indicate safety positions and a data base exists indicating all safety positions. Manpower prohibits including this information into the valve tables. The licensee will review the program to insure all valves exercised at cold shutdown or refueling are noted in the remarks column.

9. Are individual leak rate limits assigned to each relief valve that is categorized A/C and Appendix J, Type C, leak rate tested?

Response:

The licensee's program reflects the actual Code requirements in order to comply with the Jurisdiction. The licensee will expand relief request V-04 to explain the apparent conflict in the program.

10. The Staff considers air operators on air operated testable check valves to be an operator rather than a mechanical exerciser, therefore, measuring opening torque is unnecessary. Relief Request V-17 is unnecessary as written, however, revision will be necessary if the test operator does not move the check valve disk to the full open position.

Response:

The licensee will leave the relief request as is. No program changes will occur.

11. If the spent fuel pool cooling system performs a safety-related function, then the appropriate pumps and valves should be included in the IST program.

Response:

Spent Fuel Pool cooling is not a safety-related system. The Spent Fuel Pool has a safety-related backup supply from RHR. All valves associated with the RHR backup are in the IST program.

12. Those valves, if any, that perform both a containment isolation function and a pressure boundary isolation function must be leak tested to both Appendix J and Section XI requirements.

Response:

The licensee will explain in the body of the IST program their position on PIV/CIV testing and the technical justification for the position.

13. Relief requests must be specific in identifying the Section XI requirements from which relief is being sought.

Response:

The licensee will evaluate each relief request to insure that each is specific in what is being requested and each specific area is technically justified.

B. Main Steam and Drains System

P&ID M-41-1, Sh. 1 and 2

1. How are valves 1-AB-V051 through -V058 verified to close during cold shutdowns?

Response:

The licensee will submit a relief request to exercise these valves during those cold shutdown's when the containment is de-inerted and at each refueling outage.

2. If valves 1-AB-PAV-4500 and 1-AB-PAV-37 are simple check valves, then they must be tested in accordance with the requirements for Category C, active, check valves.

Response:

These spring loaded check valves are in the IST program and tested to the Code requirements. No program changes are necessary.

3. Why are valves 1-AB-PAV-4504A through -4504R categorized A/C while valves 1-AB-PAV-4505A through -4505D are categorized C ?

Response:

1-AB-PSV-4504 A-R are leak rate tested and have specific leak rates assigned. 1-AB-PSV-4505 A-D are not leak rate tested and have no specific leakage criteria. No program changes will occur.

4. Those safety relief valves (1-AB-PSV-F013A through -F013R) which perform an ADS function are required to be categorized B/C and tested to the requirements of Section XI for both categories. Provide a more detailed technical justification for not full-stroke exercising these valves quarterly. How is stroke time measured when testing these valves?

Response:

The ADS valves are 1-AB-PSV-F013 A-E. The licensee will re-categorize these valves B/C and rewrite Relief Request V-14 to include a technical justification of when and how these valves will be exercised as well as a justification for not stroke timing the valves.

5. Why are valves 1-AB-V043 through -V050 categorized A/C?

Response:

These relief valves are assigned specific leak rates and are leak rate tested. Relief Request V-09 will be rewritten to propose testing at cold shutdown when de-inerted and each refueling outage.

6. Provide a more detailed technical justification for not exercising valves 1-AB-V043 through -V050, and -V109 through -V114 closed during cold shutdowns when the containment is de-inerted.

Response:

Relief Request V-09 will be rewritten. See previous question.

7. Solenoid operated air control valves are considered to be part of the larger valve assembly that they operate and need not be included in the IST program separately. (See Relief Request V-14)

Response:

Relief Request V-14 will be modified to eliminate the solenoid valves from the IST program.

8. Provide a detailed technical justification for not full-stroke exercising valves 1-AE-V003 and -V007 quarterly.

Response:

The licensee will expand the technical justification of Relief Request V-01 for not testing these check valves at power and at cold shutdown. The relief request will also include a technical justification for using Appendix J leak testing to exercise check valves 1-AE-V003 and V007.

9. Provide a detailed technical justification for not full-stroke exercising valves 1-AE-HV-F032A, -F032B, -F074A, and -F074B quarterly and during cold shutdowns.

Response:

Two new relief requests will be written to justify testing 1-AE-HV-F032A and B at cold shutdowns and 1-AE-HV-F074A and B at refueling outages. The relief requests will address loss of feed flows, thermal stresses and lack of operator torque to overcome valve differential pressure. Justification for F074A and B will also include why they are not stroke timed.

10. Provide the P&ID that shows the location of valve 1-AE-HV-4144 (1-AE-V138).

Response:

The P&ID was provided for the Staff's review. No further questions.

11. Review the safety-related function of valves 1-AB-HV-F067A, -F067B, -F067C, and -F067D to determine if they should be included in the IST program and tested in accordance with the requirements of Section XI.

Response:

All valves are in the program. No program changes will occur.

C. Reactor Water Cleanup System
P&ID M-44-1

1. Provide a detailed technical justification for not full-stroke exercising valves 1-AE-V127, -V128, and 1-AE-HV-F039 quarterly.

Response:

A cold shutdown justification will be written for valves 1-AE-V127 and -128. 1-AE-HV-F039 is currently tested quarterly.

D. Reactor Recirculation System
P&IDs M-43-1 and M-42-1

1. How are valves 1-BB-V043 and -V047 verified closed during cold shutdowns?

Response:

A relief request will be written to test these check valves at refueling using the Appendix J leak test to verify them closed.

2. Provide a more detailed technical justification for not full-stroke exercising the excess flow check valves listed in Relief Request V-06 during cold shutdowns.

Response:

The licensee will expand the technical basis of Relief Request V-06 to indicate why these check valves are not tested at cold shutdowns (i.e., system pressure, instrument loss, decay heat removal loss, etc.).

E. Residual Heat Removal System

P&ID M-51-1

1. Can valves 1-BC-V030, -V033, -V127, and -V130 be full-stroke exercised open during the quarterly pump test?

Response:

See Section E.2

2. What alternate means of measuring valve degradation have been investigated other than "freedom of motion" as referenced in Relief Request V-18?

Response: OPEN ITEM FOR NRC

These check valves have been modified making them simple check valves with dogged manual exercisers.* The licensee desires to use these manual exercisers in lieu of flow but lack a defined, repeatable test (other than operator feel).

The licensee has suggested developing a testing procedure which details the use of exercising lever position and the sound of the check valve striking its back seat with the lever at a specific angle. The Staff must analyze this method to determine repeatability of this type of test.

*The licensee stated these valves are unique to the industry. See Attachment 1.

3. Review the safety-related function of check valves V090, V195, V207, and V210 to determine if they should be included in the IST program. (P&ID M-51-1, Sh. 1, C-5)

Response:

These valves have no safety function and need not be included in the IST program.

4. Review the safety-related function of valves 1-BC-HV-4420B and 1-BC-HV-4421 to determine if they should be included in the IST program. (P&ID M-51-1, Sh. 1, D-3 and D-2, respectively)

Response:

These valves have no safety function and need not be included in the IST program.

5. What is the safety-related function of check valves 1-AP-V055 and -V058 if the normal position of the manual valve downstream of each is closed as shown on the P&ID?

Response:

These check valves provide a backup keep fill supply and are valved in occasionally. They will remain in the IST program. No program changes will occur.

6. How are check valves 1-BC-V206 and -V260 verified closed quarterly?

Response:

The licensee produced the testing procedures used quarterly for these check valves for the Staff's review. No further questions.

F. Reactor Core Isolation Cooling System
P&IDs M-49-1 and M-50-1

1. How is check valve 1-BD-V006 verified to full-stroke exercise open quarterly?

Response:

The licensee reviewed the safety function of this valve and found it does not perform any due to the upstream solenoid valves. A design change will be submitted to remove the internals of this valve and it will be removed from the program.

2. How are check valves 1-BD-V028 and -V029 individually verified to full-stroke exercise closed quarterly?

Response:

1-BD-V028 is exercised closed quarterly to the Code requirements by the use of test taps. 1-BD-V029 performs no safety function in the closed position but is exercised open quarterly.

3. What is the safety-related function of check valve 1-AP-V051 if the normal position of the manual valve downstream of it is closed as shown on the P&ID?

Response:

See Section E.5.

4. Can valve 1-FC-V003 be verified to full-stroke exercise during the quarterly pump test?

Response:

See Section E.2

5. Would failure of valve 1-FC-HV-V007 in the closed position while testing render an entire safety system inoperable? Should this valve be full-stroke exercised during cold shutdowns?

Response:

The licensee does not consider shutting down to fix this valve sufficient reason not to test quarterly. No program changes will occur.

G. Core Spray System

P&ID M-52-1

1. Can check valves 1-BE-V028, -V030, -V032, and -V034 be verified to full-stroke exercise open using system flow?

Response:

See Section E.2

2. Review the safety-related function of valves 1-BC-V309 and -V313 to determine if they should be included in the IST program.

Response:

1-BC-V309 and V313 have no safety function and need not be included into the IST program.

3. What is the safety-related function of check valves 1-AP-040 and -061 if the normal position of the manual valves downstream of each is closed as shown on the P&ID?

Response:

See Section E.5.

H. Control Rod Drive System
P&ID M-47-1

1. Industry experience has shown that valve 1-BF-V138 is full-stroke exercised closed during normal control rod movement, therefore, this valve may be removed from Relief Request V-16.

Response:

The licensee will remove 1-BF-V138 from Relief Request V-16.

2. What is the frequency of the control rod scram time testing proposed in Relief Request V-16?

Response:

The licensee will rewrite the alternate test to incorporate the control rod scram time testing frequency in Relief Request V-16.

3. How is stroke time measured when testing valves 1-BF-V126 and -V127?

Response:

A relief request will be written to measure the stroke time of 1-BF-V126 and 127 indirectly using scram time testing.

4. The NRC Staff position is that check valve 1-BF-V115 is to be included in the IST program and tested to the requirements of Section XI to the extent practical.

Response:

1-BF-V115 will be added to the IST program with a relief request written to justify a refueling outage frequency.

I. Standby Liquid Control System
P&ID M-48-1

1. Provide a detailed technical justification for not full-stroke exercising valves 1-BH-V004 and -V005 quarterly.

Response: OPEN ITEM FOR NRC

Hope Creek's Standby Liquid Control System has an automatic initiation signal. Testing these check valves quarterly would place one train out of service, which violates Technical Specifications and the FSAR. The licensee desires to continue to test these valves at cold shutdown. The Staff will review this system and evaluate continued cold shutdown testing. (Also see Pump Program Item Number 6)

J. High Pressure Coolant Injection System
P&IDs M-55-1 and M-56-1

1. What is the safety-related function of check valve 1-AP-V037 if the normal position of the manual valve downstream of it is closed as shown on the P&ID?

Response:

See Section E.5.

2. Provide a detailed technical justification for not full-stroke exercising closed check valve 1-BJ-V014 quarterly. How is check valve 1-BJ-V023 verified closed quarterly?

Response:

1-BJ-V014 will be exercised closed quarterly. 1-BJ-V023 has no safety function and need not be included in the IST program.

3. Can check valve 1-BJ-V015 be verified to full-stroke open during the quarterly pump testing?

Response:

See Section E.2

4. Provide a detailed technical justification for not full-stroke exercising check valve 1-BJ-V024 quarterly.

Response:

1-BJ-V024 is a manual valve and need not be included in the IST program.

5. Can check valve 1-FD-V004 be verified to full-stroke exercise during the quarterly pump testing?

Response:

See Section E.2

6. Provide a detailed technical justification for not full-stroke exercising valves 1-FD-V032 and -V038 quarterly.

Response:

The IST program will be modified so 1-FD-V032 and V038 will be exercised on a quarterly frequency.

7. Would failure of valve 1-FD-HV-V002 in the closed position while testing render an entire safety system inoperable? Should this valve be tested at cold shutdowns?

Response:

The licensee does not consider shutting down to fix this valve sufficient reason not to test quarterly. No program changes will occur.

K. Safety Auxiliaries Cooling System
P&ID M-11-1

1. Review the safety-related function of valves 1-EG-TV-2517A and -2517B to determine if they should be included in the IST program.

Response:

These valves are temperature control valves with no required fail-safe position and need not be included into the IST program.

L. Containment Atmospheric Control System
P&ID M-57-1

1. How are check valves 1-GS-V081, -V093, -V138, and -V139 individually verified to close?

Response:

The valves are verified to exercise close by isolating and monitoring accumulator pressure.

2. Why are valves 1-GS-PSV-4946A through -4946H categorized A/C and then exempted from Section XI leak rate testing?

Response:

These valves will be changed from category A/C to category C.

M. Diesel Fuel Oil System

P&ID M-30-1

1. The NRC Staff position concerning the diesel fuel oil transfer system is that those valves in the system from the diesel fuel oil storage tank to the day tank are considered to be safety-related and should be in the IST program. Relief Requests V-08 and V-13 appear to be unnecessary and may be deleted from the IST program.

Response:

Relief Request V-08 has already been removed from the program. All skid mounted valves will be removed from the IST program. Relief Request V-13 and all associated valves will be removed from the program.

Additional Comment:

Diesel Generator air start solenoid valves cannot be stroke timed per Code requirements. A new relief request will be written to provide a technical justification for using the diesel generator starting time as a basis for stroke timing these valves.

N. Containment Instrument Gas System

P&ID M-59-1

1. The NRC Staff position concerning skid mounted valves is that they are tested as a unit with the associated equipment and need not be included in the IST program separately. Relief Request V-11 may be affected by this Staff position.

Response:

Relief Request V-11 will be revised to remove all skid mounted valves from the program. Also, an alternate test method will be added to the relief request.

2. How is check valve 1-SE-V006 verified to close during cold shutdowns?

Response:

1-SE-V006 is verified closed by applying nitrogen pressure to it. A relief request will be written to test this valve at cold shutdown when the containment is de-inerted and each refueling outage.

O. Service Water System

P&ID M-10-1

1. How are check valves 1-BC-V423 and -V557 verified to full-stroke exercise open quarterly?

Response:

1-BC-V423 and V557 are exercised open by the use of a fire hose hookup. No further questions.

2. Provide a detailed technical justification for not full-stroke exercising valves 1-ED-HV-2357A and -2357B quarterly.

Response:

The licensee will provide a detail cold shutdown justification for these valves.

3. Review the safety-related function of valves 1-ED-HV-4647 and -4648 to determine if they should be included in the IST program.

Response:

1-ED-HV-4647 and 4648 have no safety function and need not be included into the IST program.

P. Reactor Auxiliaries Cooling System
P&ID M-13-1

1. Why are valves 1-ED-HV-2598 and -2599 leak rate tested?

Response:

1-ED-HV-2598 and 2599 need not be leak rate tested and will be categorized B.

Q. Main Steam Isolation Valve Sealing System
P&ID M-72-1

1. How are valves 1-KP-V011 and -V017 through -V023 verified to full-stroke exercise during cold shutdowns?

Response:

These check valves are full stroke exercised by passing 20 SCFM nitrogen flow through each.

2. Review the safety-related function of valves 1-KP-PCV-5825A and -5825B to determine if they should be included in the IST program and tested in accordance with the requirements of Section XI.

Response:

These valves have no safety function and need not be included into the IST program.

2. PUMP TESTING PROGRAM

1. The NRC Staff position concerning skid mounted pumps is that they are tested as a unit with the associated equipment and need not be included in the IST program separately. Relief Request P-4 may be affected by this position.

Response:

Relief Request P-4 will be removed and all associated pumps removed from the program.

2. The NRC Staff requires that both flow and differential pressure be measured during quarterly pump testing. The Hope Creek IST program does not reflect this requirement.

Response:

Both parameters are currently measured. The "or" in the pump table will be changed to "and."

3. How is flow and differential pressure measured during the quarterly testing of the service water screen wash pumps?

Response:

The suction and discharge pressures are instrumented, allowing differential pressure to be calculated. Flow is measured by an indicating flow switch.

4. How is differential pressure measured during the quarterly testing of the service water pumps?

Response:

Suction pressure is calculated from the height of water in the suction bay. The licensee will submit a new relief request to calculate suction pressure in place of direct measurement.

5. What is the safety-related function of the HPCI and RCIC system jockey pumps?

Response:

These pumps provide a safety-related long term feedwater seal and are required to be in the IST program.

6. Provide a detailed technical justification for not testing the standby liquid control pumps quarterly in accordance with the requirements of Section XI.

Response: OPEN ITEM FOR NRC

The Standby Liquid Control System is initiated by an automatic signal. Testing these pumps quarterly would remove one train for a long period of time causing conflicts with Technical Specifications and the FSAR. The licensee desires to continue testing these pumps at cold shutdown. The licensee will submit a detailed justification for testing these pumps at cold shutdown as a separate submittal. The Staff will evaluate the continued cold shutdown testing of these pumps. (Also see Valve Section I.1)

7. Provide a detailed technical justification for not testing the core spray pumps independently.

Response: OPEN ITEM FOR LICENSEE

The licensee currently tests these pumps in pairs of two measuring all pump parameters individually except flow. The licensee feels the degradation of one of the pumps would be reflected in the combined flowrate which makes the individual running of the pumps extra wear and unnecessary. The licensee will submit a detailed technical justification supporting that the combined flowrate measurements will adequately reflect pump degradation within the requirements of the Code.

ATTACHMENT I INTERIM DRAWING CHANGE NOTICE

Primary System AP
 Eng. Subsystem APA

DCR NO. <u>4-BMP-86-099</u>	
DCP NO. <u>7189</u>	REV. <u>1</u>
IDCN NO. <u>P002</u>	Page <u>1</u> of <u>4</u> Page(s)
BY: <u>John C. Longley</u>	CHECKED: <u>[Signature]</u>
ENG. <u>ASX</u> APPRV. <u>OWC/ROB.</u>	DTE: <u>5-7-86</u>
DRAWING NO.	SH. R:
<u>10855-P-302(Q)-354</u>	<u>1</u> <u>3</u>

FSAR CHANGE REQUIRED: YES NO

REASON FOR CHANGE: TESTABLE CHECK VALVES WILL NOT OPEN/CLOSE PROPERLY UNDER NORMAL FLOW CONDITIONS

SITE ENG. COORD.	C	E	H	I/C	M	P	S	SAG		

ADD THE INFORMATION SHOWN ON PAGES 3 & 4 TO THE SUBJECT VALVE DRAWINGS. THIS MODIFICATION WILL REMEDY THE TESTABLE CHECK VALVES FROM STICKING IN ONE POSITION.

THIS IDCN SUPERSEDES IDCN No. P001.

**PSE & G
CONTROLLED
COPY No. 144/01**

INTERIM DRAWING CHANGE NOTICE

HOPE CREEK GENERATING STATION

THIS "IDCN" APPLIES TO:

ROOM No: N/A

S/U No: APA

DCR No: 4-BMP-86-099

DCP No: 7189 REV. 1

IDCN APPROVAL DATE:

DRAWING NO.

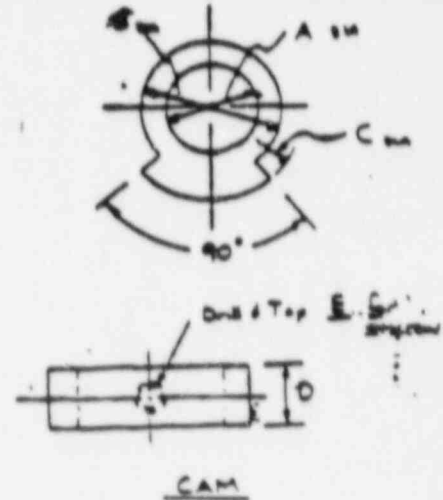
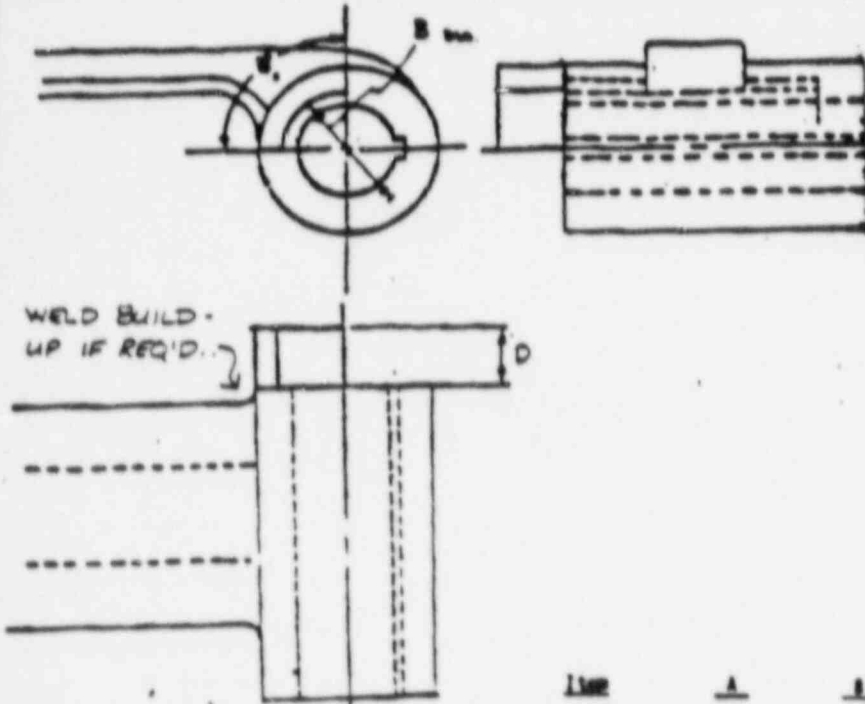
Rev. No

10855-P-302(Q)-354

3

IDCN NO. P002

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Item	A	B	C	D	E	Drill Depth vs Ring Pt.
P001-3.1	7/16"	5/8"	13/16"	1/4"	1/8"	1/8"
3.2	1/2"	3/4"	1"	1/2"	1/4"	1/8"
3.3	5/8"	13/16"	1"	1/2"	1/4"	1/8"
7.5	5/8"	13/16"	1"	1/2"	1/4"	1/8"
7.7	5/8"	1-1/8"	1-1/2"	3/4"	3/8"	1/4"
7.9	1"	1-1/2"	2"	3/4"	3/8"	1/4"
7.11	1-3/8"	1-7/8"	2-1/4"	1"	7/16"	3/8"
10.27	5/8"	1"	1-1/4"	1/2"	1/4"	1/8"
P002-7.7	Same as 7.9					
7.13	7/8"	1-1/8"	1-1/2"	1/2"	1/4"	1/8"
THIS ITEM → 7.15	3/4"	1"	1-1/4"	1/4"	1/8"	1/8"

Tolerances:

- A. Plus 1/64
- B. Plus 1/8 minus 1/16
- C. Plus 1/8 minus 1/16
- D. Plus or minus 1/16
- E. N/A
- Drill Depth plus 1/16

INTERIM DRAWING CHANGE NOTICE
HOPE CREEK GENERATING STATION

THIS "IDCN" APPLIES TO:

ROOM No: N/A

S/U No: APA

DCR No: 4-BMP-86-099

DCP No: 7189 REV. 1

IDCN APPROVAL DATE:

DRAWING NO.

Rev. No

10855-P-302(Q)-354

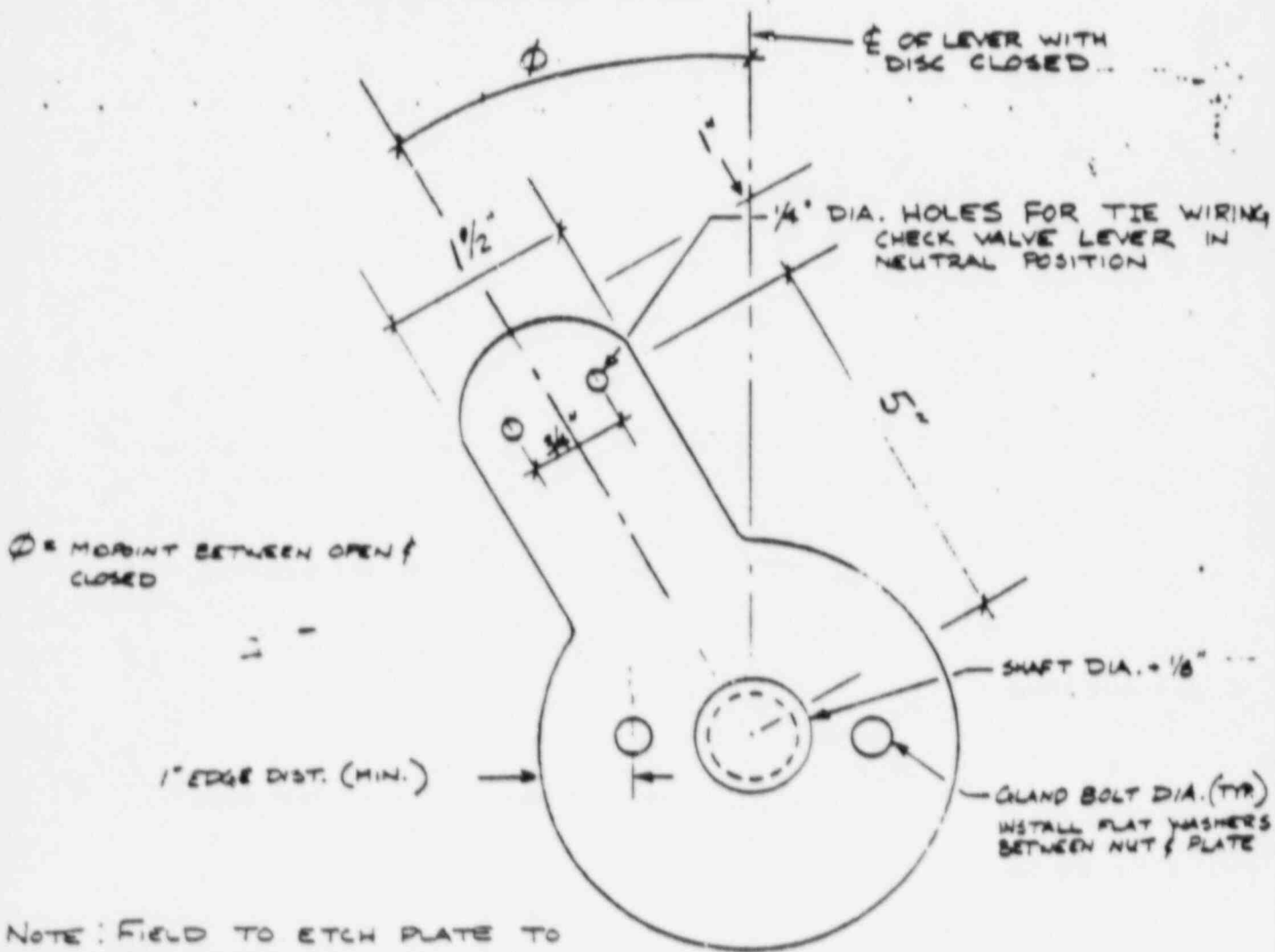
3

IDCN NO. P002

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LEVER KEEPER

- FIELD FABRICATED
- 1/8" THK. ALUMINUM PLATE



NOTE: FIELD TO ETCH PLATE TO SHOW "FRONT" & "TOP" TO ENSURE PROPER ORIENTATION IF EVER REMOVED

HOPE CREEK GENERATING STATION
IST PROGRAM WORKING MEETING
JUNE 29-30, 1988

<u>NAME</u>	<u>REPRESENTING</u>
W. C. Hemming	INEL/EG&G Rockville, MD.
T. L. Cook	INEL/EG&G Idaho
G. Rivenbark	NRC/NRR/Project Manager
G. Meyer	NRC/Senior Resident Inspector
D. Allsopp	NRC/Resident Inspector
D. Stoxen	PSE&G/Operations Staff Engineer
L. Lake	PSE&G/ISI Engineer
D. Vito	PSE&G/Senior Engineer, Licensing
E. Maloney	PSE&G/ISI Supervisor
R. Binz	PSE&G/Senior Staff Systems Engineer