

50-482



KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER  
VICE PRESIDENT - NUCLEAR

July 29, 1985

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

KMLNRC 85-187  
Re: KMLNRC 85-061 dated 2/22/85 from GLKoester,  
KG&E, to HRDenton, NRC  
Subj: Inservice Testing Program for Pumps and Valves

Dear Mr. Denton:

The Referenced letter transmitted in Revision 2 to the Wolf Creek Generating Station (WCGS) Inservice Testing (IST) Program for Pumps and Valves. Transmitted herewith is Revision 4 of the Wolf Creek IST Program for Pumps and Valves.

The revision contains several program enhancements, corrects minor discrepancies and documents three additional relief requests (PR-10, PR-11 and VR-8) identified during initial program implementation. The specific changes, along with the basis for each change, are listed in Attachment 1 for Revision 3 and in Attachment 2 for Revision 4. Revision bars have been added to designate the changes for both Revision 3 and Revision 4 to aid in your review.

The program continues to meet the requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through Winter 1981 Addenda and provides an effective, improved program which will assure overall safe operation of the plant. Therefore, KG&E has implemented Revision 4 pending formal NRC acceptance of an IST Program for WCGS.

This submittal is hereby incorporated into the Wolf Creek Generating Station, Unit 1, Docket.

Yours very truly,

*Glenn L. Koester*

GLK:bb  
Attach  
xc:PO'Connor (2), w/a  
JCummins, w/a

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PDR ADOCK 05000482  
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*FOA 7/1/85*



REVISION 3

CHANGES TO WOLF CREEK GENERATION STATION  
INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES

ITEM 1: CHANGE: In Table 1.1 make the following changes: Change M-02AB01 to M-12AB01, M-02AB02 to M-12AB02, M-02AL01 to M-12AL01, M-02BB01 to M-12BB01, M-02BB02 to M-12BB02, M-02BB04 to M-12BB04, M-02BG01 to M-12BG01, M-02BG02 to M-12BG02, M-02BG03 to M-12BG03, M-02BG04 to M-12BG04, M-02BG05 to M-12BG05, M-02BL01 to M-12BL01, M-02BN01 to M-12BN01, M-02EC01 to M-12EC01, M-02EG01 to M-12EG01, M-02EG02 to M-12EG02, M-02EJ01 to M-12EJ01, M-02EM02 to M-12EM02, M-02FC02 to M-12FC02, M-02GS01 to M-12GS01, M-02GT01 to M-12GT01, M-02HB01 to M-12HB01, M-02JE01 to M-12JE01, M-02KJ02 to M-12KJ02, M-02KJ05 to M-12KJ05, M-02LF03 to M-12LF03, M-02SJ01 to M-12SJ01 and M-02SJ04 to M-12SJ04.

BASIS FOR CHANGE: Piping and Instrumentation Diagrams were renumbered to indicate site specific.

ITEM 2: CHANGE: Change step 2.1.4 to read as follows:  
The allowable ranges specified in Table IWP-3100-2 will be used for differential pressure, flow and vibration measurements with the following exceptions. The Acceptable Range (on the high side) for differential pressure (DP) and flow (Q) shall be 1.05 times the reference value. The Alert Range (High Values) shall be  $>1.05$  times the reference value for differential pressure and flow. Also for DP and Q the Required Action Range (High Values) will not be used. Should a measured test quantity fall outside the allowable range, the possibility of defining an expanded allowable range, in accordance with ASME Code interpretation XI-1-79-19, will be investigated.

BASIS FOR CHANGE: ASME Code allowable ranges specified in Table IWP-3100-2 are too restrictive (see Relief Request PR-11).

ITEM 3: CHANGE: On Relief Request No. PR-2 in the ALTERNATE TESTING paragraph, change three (3) to four (4).

BASIS FOR CHANGE: The three (3) should have been a four (4) so as to correlate with the 96 hour requirement.

ITEM 4: CHANGE: Add relief request no. PR-10 to Section 2.2, RELIEF REQUESTS FOR PUMP TESTING PROGRAM.

BASIS FOR CHANGE: Program enhancement.

Attachment 1

CHANGES TO IST PROGRAM (CONT.)

- ITEM 5: CHANGE: Add Relief Request No. PR-11 to Section 2.2.  
BASIS FOR CHANGE: Program enhancement.
- ITEM 6: CHANGE: In Section 3.1.2, add M Milliliters per minute., immediately following G Gallons per minute. in the MAX LEAKG paragraph.  
BASIS FOR CHANGE: Program enhancement.
- ITEM 7: CHANGE: In Section 3.1.4, STROKE TIME (a) paragraph, change the last part of the first sentence after the word observed to read: test frequency shall be increased to once each month until corrective action is taken.  
BASIS FOR CHANGE: To conform to corrective action per IWV-3417.
- ITEM 8: CHANGE: In Section 3.1.4, SEAT LEAKAGE (b) paragraph, change the paragraph to read as follows:  
For valves 6 in. nominal pipe size and larger the leakage rate shall not exceed its specified maximum leakage rate. For these valves, with the exception of the 1 gpm-leakage criteria valves (Relief Request VR-6), if the leakage rate exceeds the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate by 50% or greater, the test frequency shall be doubled; the tests shall be scheduled to coincide with a cold shutdown until corrective action is taken. The original test frequency shall be resumed upon completion of corrective action. Also, for  $\geq 6$  in. nominal pipe size valves, if tests show a leakage rate increasing with time and a projection based on three or more tests indicates that the leakage rate of the next scheduled test will exceed the maximum permissible leakage rate by greater than 10%, corrective action will be taken.  
BASIS FOR CHANGE: To conform to corrective action per IWV-3427.
- ITEM 9: CHANGE: On Relief Request No. VR-4 in the VALVE(S) paragraph add EJ 8841A and EJ 8841B to the list.  
BASIS FOR CHANGE: Program enhancement.

Attachment 1

CHANGES TO IST PROGRAM (CONT.)

ITEM 10: CHANGE: Make the following changes in Appendix A, PUMP TESTING PROGRAM, in the P&ID NUMBER column.  
Change M-02AL01 to M-12AL01, M-02BG05 to M-12BG05,  
M-02BG03 to M-12BG03, M-02EC01 to M-12EC01, M-02EG01 to  
M-12EG01, M-02EJ01 to M-12EJ01 and M-02JE01 to M-12JE01.

BASIS FOR CHANGE: Piping and Instrumentation Diagrams were renumbered to indicate site specific.

ITEM 11: CHANGE: Add leakage acceptance criteria to the MAX LEAKG Column in Appendix B for valves that require an AT-1, AT-2, or AT-3 test.

BASIS FOR CHANGE: Program enhancement.

ITEM 12: CHANGE: In Appendix B, for valves AB HV-12, AB HV-15, AB HV-18 and AB HV-21, add a BT-C, BT-P, FST and PIT in the TEST RQMT column, add a CS, Q, CS and 2Y in the TST FRE column, and add a 10 in the MAX STRK TIME column for the closed stroke test (BT-C).

BASIS FOR CHANGE: Program enhancement.

ITEM 13: CHANGE: In Appendix B, for valves BB 8037A and BB 8037B, change the valve no. from 8037A and 8037B to HV-8037A and HV-8037B, respectively.

BASIS FOR CHANGE: Program enhancement.

ITEM 14: CHANGE: In Appendix B, for valves BB PV-8702A and BB PV-8702B, change the CS to RR in the TST FRE column, corresponding to AT-2 (TEST RQMT).

BASIS FOR CHANGE: Program enhancement.

ITEM 15: CHANGE: In Appendix B, for valves BB-V118, BB-V148, BB-V178, BB-V208, BG-V135, BG 8381, BL 8046, EG-V204, EM-V006, EP-V046, KA-V039, KA-V204, KC-V478 and SJ-V111, change the CS to RR in the TST FRE column, corresponding to CVT-C (TEST RQMT).

BASIS FOR CHANGE: Program enhancement.

Attachment 1

CHANGES TO IST PROGRAM (CONT.)

ITEM 16: CHANGE: In Appendix B, for valves BB-V122, BB-V152, BB-V182 and BB-V212, change the Q to CS, in the TST FRE column, corresponding to CVT-0 and CVT-C (TEST RQMT). Also for each valve add a NOTE 31 in the REMARKS column.

BASIS FOR CHANGE: Exercising these valves during normal operations (Q) could damage the Reactor Coolant Pumps' seals.

ITEM 17: CHANGE: In Appendix B, for valves BG V-8546A and BG V-8546B, change the valve no. from V-8546A and V-8546B to 8546A and 8546B, respectively.

BASIS FOR CHANGE: Program enhancement.

ITEM 18: CHANGE: In Appendix B, for valves BN HV-8806A, BN HV-8806B, BN LCV-112D and BN LCV-112E, change the 10 to 15 in the MAX STRK TIME column.

BASIS FOR CHANGE: Program enhancement.

ITEM 19: CHANGE: In Appendix B, for valves BN HV-8812A and BN HV-8812B, change the 20 to a 17 in the MAX STRK TIME column.

BASIS FOR CHANGE: Program enhancement.

ITEM 20: CHANGE: In Appendix B, for valves EG HV-69A, EG HV-69B, EG HV-70A and EG HV-70B, change the 7 to a 10 in the MAX STRK TIME column.

BASIS FOR CHANGE: Program enhancement.

ITEM 21: CHANGE: In Appendix B, for valves EJ 8841A and EJ 8841B, change the CS to RR in the TST FRE column for the CVT-C test. Also, for these valves add a VR-4 in the RELIEF REQUEST column.

BASIS FOR CHANGE: Program enhancement.



Attachment 1

CHANGES TO IST PROGRAM (CONT.)

- ITEM 22: CHANGE: In Appendix B, for valves EJ HV-8716A and EJ HV-8716B, change the Q to CS in the TST FRE column for both BT-0 and BT-C tests. Also change NOTE 36 to NOTE 36, 20 in the REMARKS column for both valves.
- BASIS FOR CHANGE: Program enhancement.
- ITEM 23: CHANGE: In Appendix B, for valve EM HV-8888, add a FST in the TEST RQMT column and a Q in the TST FRE column on the same line as the FST.
- BASIS FOR CHANGE: Program enhancement.
- ITEM 24: CHANGE: In Appendix B, for valves EM HV-8801A, EM HV-8801B, EM HV-8803A and EM HV-8803B, change the CS to Q in the TST FRE column for BT-0 and BT-C tests. Also change NOTES 31, 36 to NOTE 36 for each valve in the REMARKS column.
- BASIS FOR CHANGE: Program enhancement.
- ITEM 25: CHANGE: In Appendix B, for valves EM HV-8837A and EM HV-8837B, change the CS to Q in the TST FRE column for BT-0, BT-C and FST. Also delete the NOTE 31 in the REMARKS column.
- BASIS FOR CHANGE: Program enhancement.
- ITEM 26: CHANGE: In Appendix B, for valves GS HV-20 and GS HV-21, change the 3 to 5 in the MAX STRK TIME column.
- BASIS FOR CHANGE: Program enhancement.
- ITEM 27: CHANGE: In the NOTES section of Appendix B, change note number 20 to read as follows:  
Exercising these valves during normal operation would result in isolating accumulator injection flowpaths and safety injection system hot leg recirculation loops 2 and 3. Valve testing will be performed during cold shutdown.
- BASIS FOR CHANGE: Program enhancement.

CHANGES TO IST PROGRAM (CONT.)

ITEM 28: CHANGE: In the NOTES section of Appendix B, change note number 31 to read as follows.  
Exercising of these valves during normal operation would result in interruption of Component Cooling Water flow to the Reactor Coolant Pump's Thermal Barrier Cooling Coil. Valve testing will be performed during cold shutdown.

BASIS FOR CHANGE: Program enhancement.

ITEM 29: CHANGE: In the NOTES section of Appendix B, change notes 34 and 35 to read as follows:  
34. Not used.  
35. Not used.

BASIS FOR CHANGE: Program enhancement.

ITEM 30: CHANGE: In Appendix B, for valves AB HV-11, AB HV-14, AB HV-17 and AB HV-20, delete the FST in the TEST RQMT column and delete the CS in the TST FRE column that corresponds to the FST.

BASIS FOR CHANGE: Program enhancement.

ITEM 31: CHANGE: In Appendix B, for valves KJ PV-1A, KJ PV-1B, KJ PV-101A and KJ PV-101B, delete the FST in the TEST RQMT column and delete the CS in the TST FRE column corresponding to the FST. Also for these valves delete the NOTE 35 in the REMARKS column for each valve and change the CS to Q in the TST FRE column for the BT-0 tests.

BASIS FOR CHANGE: Program enhancement.

ITEM 32: CHANGE: In Appendix B, for valves BM HV-1, BM HV-2, BM HV-3 and BM HV-4, change the CS to Q in the TST FRE column for the BT-C and FST tests.

BASIS FOR CHANGE: Program enhancement.

ITEM 33: CHANGE: In Appendix B, for valves GT HZ-6, GT HZ-7, GT HZ-8 and GT HZ-9, change the CS to Q in the TST FRE column corresponding to the BT-C and FST tests. Also for these valves delete the NOTE 34 in the REMARKS column.

BASIS FOR CHANGE: Program enhancement.



REVISION 4

CHANGES TO WOLF CREEK GENERATION STATION  
INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES

ITEM 1:       CHANGE:   In Section 3.1.4, under SEAT LEAKAGE, delete the (a) in the first paragraph and delete paragraph (b) including the (b).

BASIS FOR CHANGE:   A recent draft of ANSI/ASME valve standard OM-10 has deleted these test requirements from the corrective action paragraph for valve leak rate testing.

ITEM 2:       CHANGE:   Add relief request no. VR-8 to Section 3.2, RELIEF REQUESTS FOR INSERVICE VALVE TESTING PROGRAM.

BASIS FOR CHANGE:   Program enhancement.

ITEM 3:       CHANGE:   In Appendix B, for valves that have an AT-1 in the TEST RQMT column, add in the RELIEF REQUEST column a VR-8 or ,8. (space permitting)

BASIS FOR CHANGE:   Program enhancement.